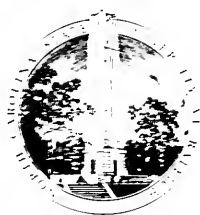


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THE SOUTHERN PLANTER AND FARMER,

DEVOTED TO

Agriculture, Horticulture, and Rural Affairs.

L. R. DICKINSON..... Editor and Proprietor.

RICHMOND, VA.,

JANUARY, 1876.

No. 1.

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AGRICULTURE, HORTICULTURE AND RURAL AFFAIRS

Agriculture is the nursing mother of the Arts.—XENOPHON.
Tillage and Pasturage are the two breasts of the State.—SULLY.

L. R. DICKINSON, EDITOR AND PROPRIETOR.

Vol. XXXVII. RICHMOND, VA., JANUARY, 1876. No. 1

[For the Southern Planter and Farmer.]*

THE IMPORTANCE OF ESTABLISHING AN AGRICULTURAL AND GEOLOGICAL BUREAU IN VIRGINIA.

That something must be done, and that speedily, to revive the drooping spirits of our people, and give new life to our industries, to save us from individual and State bankruptcy, no prudent, patriotic citizen can deny. No people have suffered greater reverses of fortune, or borne them with more fortitude, than the people of Virginia. There is a limit, however, to endurance, a period beyond which hope ceases to animate, when exertion is paralysed by desolation and despair. But we need not despond if we use the means and resources with which Providence has so bountifully blessed us. Here lies our foundation for success and future prosperity. Our State possesses wonderful resources in variety and abundance, and with rare advantages. There lie hidden in her bosom quarries of marble, gypsum, slate, granite and other desirable stones; beds of coal, veins of iron, lead, copper, gold and other valuable metals,—but feebly developed and many wholly undiscovered. Her soils embracing every variety from the rich alluviums of her rivers and coast, through the sandy, slaty and clay loams of the middle, to the limestone soils of the west, are susceptible of almost unlimited improvement, and the production of the finest specimens of agricultural and horticultural products grown in the temperate zone. Some of these are noted for producing in the greatest abundance and of the finest quality, tobacco, ground-peas and sweet potatoes. The State is threaded with noble rivers and smaller streams whose falls have never been disturbed by the busy hum of the shuttle and loom, and whose waves have never been diverted to turn the wheel of industry, to propel the ponderous hammer on the ringing anvil, to drive the spinning millstone or the rattling shafting for endless mechanisms.

To develop and utilize our resources and advantages is imperatively demanded, if we would repair old losses and bring new prosperity.

We must foster and encourage the wealth-producing industries of the State. Agriculture, mining and manufactures need all that science, aided by State patronage, can confer to develop our natural resources and to utilize them for the public good. Our constitution wisely provides for a bureau of statistics, agricultural chemistry and geology; and it is a sad misfortune that no effort has been made by our law-makers for its establishment. The loss to the farmers in *one year* from the want of reliable crop reports and through press estimates; the losses consequent upon the purchase and use of fertilizers containing ingredients useless upon the lands to which they were applied, and the want of proper information, as regards agricultural chemistry and economical geology, which it is the business of such a bureau to furnish, amounts to more *annually* than the cost of establishing such a bureau, making a thorough geological survey and soil map of the State, analyzing every variety of her soil, every commercial fertilizer offered for sale in her borders, and the expenses of the bureau for many years.

Our sister State, North Carolina, has demonstrated what can be done in this line with a very limited amount of means. With an annual appropriation of only five thousand dollars, for a few years, her distinguished and able Superintendent, Professor W. C. KERR, has made a geological, mineralogical, botanical and agricultural survey of the State, published a geological map of the same; collected mineral, botanical and geological specimens, arranged by counties in a well filled and well arranged museum, in which are to be found also fossils, shells, skeletons and curiosities found in various portions of the State; analyzed soils from every section of the State, with suggestions for the best mode for improving the same; calculated the extent and value of its water power and facilities for manufactures, made many valuable suggestions tending to a fuller development of the resources of the State; and published the result of his examinations, surveys and labors in a book of 450 pages, replete with most interesting and profitable information, an honor to its author and a credit to the State.

All honor to North Carolina who was the first to order a public geological survey of the State. And although partial surveys were commenced as far back as 1823, and continued at various times, by different superintendents, it remained for Professor KERR to consummate the work in a manner that will hand down his name to future generations as a benefactor of his race.

What has Virginia done in this line? Scarcely anything worthy of the subject, and what she commenced has never been finished, as the report of Professor ROGERS has never been published.

It is a significant fact that States that have made geological surveys, and maintain agricultural, geological and statistical bureaus, are more prosperous than those that neglect these indispensable aids to a speedy and profitable development of the resources of a State. The writer demonstrated in the November No. of the *Planter and Farmer*, that farming in New Jersey paid three times as much as the

same business did in Virginia. But New Jersey is fostering her agriculture and manufactures by judicious expenditures of money to develop them. So of Massachusetts, New York, Pennsylvania, Ohio, Michigan, California, Missouri, Georgia, Kentucky, and Tennessee.

Georgia, the empire State of the south, starts with \$13,000 appropriated by the State, and "employs a corps of eight geologists, chemists, &c." "Kentucky expends about \$20,000 per annum for the work of her survey."

North Carolina, as before remarked, expends about \$5,000 per annum, and "this covers all expenses, salaries, museum rent, field work, laboratory," &c.

By every principle of political and industrial economy, Virginia demands that a beginning should be made of developing her resources and encouraging her industries. The establishment of such a bureau will benefit every class of her population. According to the census of 1870, she had engaged in all occupations 412,665 persons. In manufacturing, mechanical and mining industries, 49,413—about 12 per cent. In trade and transportation, 20,181—about 5 per cent. In farming, 214,550—about 60 per cent. In all other occupations and in idleness, 98,521—about 23 per cent. The industrial classes that will be directly and mainly benefited by such a bureau, number 284,144 or 77 per cent. while the professional and personal occupations of the 23 per cent. will be incidentally benefited. On a subject therefore of such general importance, it is to be hoped that we are a *united people*. It will require a *united effort* of all our people to bring prosperity to our industries, and save our State from bankruptcy. We would fain believe that all classes of our population are eager with willing hearts and ready hands to build her up and place her where she should stand, pre-eminent, in the foremost rank, among the most energetic, the most advanced, the most prosperous of all the States.

We have indeed, a goodly heritage, let us not neglect opportunities for its improvement. Our Legislature will not satisfy the expectations of their constituents, if they fail to inaugurate substantial measures for the relief and encouragement of the people. We have suggested one that will benefit all, help the State and return a thousand fold the small appropriation necessary for its accomplishment.

Halifax county, Va.

R. L. RAGLAND.

NOTE BY THE EDITOR.—This appeal to the Legislature is not made a moment too soon, and we are full of hope that it will bear good fruit. The *personnel* of that body is in the highest degree creditable to the State, and we are persuaded that we may look for results consistent with its character.

While it was not so intended, and certainly not desired, the abolition of slavery is bearing with much greater hardship upon the North than upon the South, as sorely as it affected us in the direct loss it involved. The South before the war was the storehouse of crude materials, which the ingenuity of the North worked up into manufactured articles. The production of cotton goods, in particular, has proved the main source of wealth to England; it has not done less for New England. Mr. GLADSTONE declared, not long ago, that the wealth of England

had increased more since the year 1800 than it had from the invasion of Cæsar to that time. The energy in the South that was devoted almost wholly to the growth of raw products has, by the destruction of its large estates, or rather the ability to conduct them, been largely turned into the channels of trade and manufactures. We find that we can do both, and that the advantages are greatly in our favor. Reasonably good government and an honest presentation of the inducements we have to offer, will bring about a transfer of capital to our limits, so ample, that the most sanguine amongst us will be astonished. As it is, cotton factories have been already established to such an extent as to double Southern consumption in three years. A pound of cotton turned into number 14 yarn can be spun now in the South for $3\frac{1}{2}$ cents less than in New England. This added to the fact that the raw material is delivered at the door of the factory, if desired, "in the seed," thus divesting it of the charges the Northern manufacturer must incur before it reaches him, exhibits an advantage that must operate as certainly as the disposition of water to flow down hill. Capital goes where it will pay best. While the Cotton States have their advantages, Virginia has not been left barren—her climate is genial because her location is between the North and the South; her soils are mainly rock-made and, therefore, can never be exhausted; her rivers are numerous and abound with available water-power; her timber is noted for its excellence; her mountain slopes admit of stock-raising on the largest scale, and also of wine production; her quarries show granite, soapstone, slate and limestone in abundance, and her mines yield the whole range of metals from gold to iron. All this we are told in a general way, and it is a fact; *but the world must know the details, AND KNOW THEM WITH ABSOLUTE EXACTNESS.* What does it avail a man if he has a house filled with food, and the doors and windows barred so securely as to keep him from getting into it. He knows the food is there, but failing to get at it, he will either starve to death or go to some other country where he can get what he needs. We have had such a house these many years, but standing closed against its people, the brains of men that would have added glory to their native State, being useless there, have left its borders to find a lodgment with people whose genius rose above the mere business of local politics. Men of only common prudence, having means, are not satisfied with declamation; *they must know the facts.* God has not been unmindful of us. He has made the provision; are we men if we cannot administer it? Can we afford to delay a single year? We will flounder forever if we insist upon placing the burden of our maintenance so entirely upon the tiller of the soil; not that he is unwilling to do his part, but his calling of all others, has been left the worst off by the war. With ALL the forces at our command, brought into only reasonable play, the burden will be so divided that no one will feel it. We have left us at least two men in the State who can find out what we have, where it is located, and what it promises. They are Major JED. HOTCHKISS and M. F. MAURY, Jr. The office might, without confusion, have attached to it an arrangement for the collection and tabulation of the statistics of the State. We should know, every year, the actual extent of our tobacco crop, not in hogsheads but in pounds; the area of land not in cultivation, distinguishing between open and wood land; the debt of the several counties and cities, and their ability to provide for it; indeed, everything needed to inform an immigrant beforehand of what we have and are as a place for him to locate. It will not do to make him dependent upon private sources of information in such matters. Capital is timid, and must be fortified by disinterested assurances before

it will change its lodgment. We have had (and we presume this is the experience of many in the larger towns of the State) numerous inquiries about our resources from intelligent Englishmen and solid men in the North, but had to make the humiliating confession that we, as a State, had no collection, no bureau, no anything in fact that would show what we had. How can we expect other people to invest their money in the development of our resources, when we, ourselves have not shown interest enough in them to present even their claims to attention.

Local politics are only a good thing to the extent that their results inure to the public benefit. Government otherwise is a curse instead of a blessing.

In founding a department like that here contemplated, we would show to the world that we were using our best endeavors to place the State on such a foundation of prosperity as would enable her to look her creditors in the face, and make good to them the last dollar she owes. It would do more; it would present a spectacle of natural advantages, so diversified in their character, and each of so much moment as a source of wealth, that an inpouring of good white blood might be assuredly counted on, and the old Commonwealth given again the pre-eminence she enjoyed in days gone by.

We cannot boast ourselves worthy sons without we *add* to the achievements of our fathers.

[For the Southern Planter and Farmer.]

A PHYSICAL SURVEY OF THE STATE—A MOST PRESSING NEED.

That Virginia possesses great natural resources is no doubt true, but they lie all undeveloped, crudely scattered upon the surface, or darkly hidden in the bowels of the earth. Nothing is so much and sadly needed as an exact, systematic, *authoritative* statement of the extent and whereabouts of these resources. This fact has been fully recognized by some of our ablest men, but their efforts have failed to awaken in the public mind a due appreciation of this great public want. Gen. F. H. Smith, Superintendent of the Virginia Military Institute, wisely conceived the idea of making that Institution the focus of this great State enterprise, and enlisted in the undertaking Col. William Gilham, a profoundly able chemist and geologist, and Com. M. F. Maury, the greatest scientific man of his day. The work was indeed, well begun, but Maury and Gilham are dead; the efforts of Gen. Smith are prostrated; other and similar efforts have failed. To-day comparatively nothing is known of the extent and availability of the resources of the State. So long as this fact remains, all efforts to attract hither immigration and capital will be fruitless.

Plainly enough a man who has sense enough to make money or to use money is not to be induced to venture his means in enterprises based on vague and glittering generalities. He wishes to know for a certainty something of quantity, quality, accessibility, facility of transportation and numberless minute things. The money holder descends into exact particulars; he pays no attention to the newspaper correspondent setting forth with declamatory enthusiasm, that the mountains of Virginia are teeming with the most valuable minerals, because he knows well that such a person knows nothing of what

minerals are there, or what ores there exist, in what quantities found; whether the mines are accessible and workable, whether fuel, limestone, sandstone, water-power are obtainable; and what is worse, no newspaper man can refer the capitalist to any man who can answer his questions, for we have no State geologist and no man knows what is worth knowing concerning these matters. Let us enter further into particulars: suppose some capitalist who has an interest in coal inquires concerning the coals of the State? he wishes to know what is the heating power of the coal? if converted into gas, what proportion of gas does it yield? what is the lighting power of that gas? what per cent. of sulphur does the coal contain? what part of it is driven off in cokeing, and how much remains in the coke? No man upon the earth can answer these questions, because no man knows the answer to any one of them. But suppose an agriculturist shall ask a few questions of our immigration bureau or its agent, a sheep husbandman it may be—what sorts of sheep do best in your State? what is the average weight of fleece? what number of lambs to one hundred ewes? what average annual losses by dogs? Who can answer? who knows? the best informed can only guess. If these questions were asked in our sister State of Georgia, for instance, the commissioner of agriculture for that State could promptly reply "*ninety-four thousand dogs in Georgia, slew last year, twenty-eight thousand six hundred sheep.*" Doubtless, it was much worse in Virginia, but no man knows. The State of Virginia is without statistics; such as have been prepared by the Federal Government are prepared for the most part under the influence of partisan malice, for the purpose of hiding and perverting the truth. While this state of things remains, not only shall we seek in vain to induce foreign capitalists and foreign laborers to come among us, but we shall not be able to keep what we have; our most enterprising young men will seek their fortunes abroad, and such little surplus money as may be owned in Virginia will be employed in foreign investments, as is the case even now, simply because no definite information can be had concerning home industries and home resources. We have an immigration bureau and it will not be difficult to supply them with the means to employ a competent geologist, to collect at the capitol a museum of samples of the industrial products and raw materials of the State, to exhibit and give exact and detailed information concerning the same, and to prepare a report for publication. I have before me the report for 1875, of Prof. W. C. Kerr, State Geologist of North Carolina, which is replete with valuable information, valuable because definite, exact, *authoritative*. I had also the pleasure lately of visiting his museum at Raleigh, and hearing his able and lucid explanations and comments upon his collections. It cannot be doubted that he has done more to develop enterprise at home, and to attract capital and population to the State in four or five years, than the immigration bureau could have done without his aid in forty. Yet an appropriation of \$5000 a year is all that he has had to work upon, out of which comes his own salary. I trust that some one who can com-

mand public attention will take hold of this matter, and that we shall have a State Geologist in Virginia.

Montgomery county, Va.

M. G. ELLZEY.

[NOTE BY THE EDITOR.—What prudent man will change his location without he is assured he can better his condition? How can he have this assurance, in respect of Virginia, if we continue to have no *official* arrangement through which he can ascertain what we have, where it is, and what it promises? It behooves, then, every tax-payer in the State to do his best to induce the Legislature to make this provision, *and to make it without delay.*

Georgia, Tennessee, Texas, North Carolina and other States in the South, whose progress is known to be forward, have such bureaux, and they are worked with untiring energy.

What does it profit us to have a goodly heritage if we do not put it to use, for that is what it was made for; and are we men if we spend our time in complaining instead of working to make the *very best* out of what is left us?]

[For the Southern Planter and Farmer.]

NOTES ABOUT FARMING,

The best plan I have tried for improving land is to use finely ground Charleston Phosphate, which can be bought at \$20 per ton, mixed with one-fifth of Guanape Guano; about 200 pounds of this mixture to the acre is applied to wheat fallow, drilled in, the cost per acre being about \$3.50.

The next Spring, about the 8th or 10th of March, clover seed is sowed, one-half the quantity to be applied; the other half is sowed across the first sowing about the 25th of March, due reference being had to the condition of the ground. The next year this clover should be fallowed or allowed to fall on the land, merely grazing enough to trample down the clover to some extent. Land cannot be improved rapidly by using fertilizers to make clover and then grazing or cutting the clover. Farm manures and ashes are also used, and surplus straw spread over the land; under this system I have seen poor land, costing \$16 per acre, pay for itself in five years. Corn is greatly benefited by applying a mixture of equal parts of Charleston Phosphate, ashes, and plaster to the hill, at the rate of 200 or 300 pounds to the acre; the ashes should be from hard wood and unleached. Besides being an excellent stimulant to the young corn, it has been found to be a complete preventive of the ravages of the cut worm and bore worm. A very excellent fertilizer for corn may be made by penning sheep at night during the late Fall, Winter and early Spring, under cover, and littering from time to time with chaff. At corn planting time this manure will be found to be really dry and in a finely divided state, or, in a condition to pulverize easily; a small quantity should be put in each hill. The increase in the yield of corn will often more than pay the expense of keeping the sheep. It is deemed important to save carefully, under cover, the ashes made upon the farm; they pay best applied to corn. If the ashes made in Virginia were carefully saved and applied to the

corn crop, there would be a large increase in the yield; I think fully one-fourth.

In the preparation of all Superphosphates, a large part of the phosphate of lime is converted into sulphate of lime or plaster, and the planter pays for this plaster at the rate of \$50 or \$60 per ton, five or six times its value, and my theory is that it is best to use the finely ground, undissolved Charleston Phosphate; that the vital action of the plants, aided by the constituents of the soil and Guanape Guano or ashes, will dissolve what phosphate they require, and that the surplus will remain in the soil, stored up for future use, and not liable to be leached out like the soluble Super Phosphate by rain.

I have been taught that it was very desirable to plow red land for corn in the Fall and early Winter. My neighbor, who is very successful with corn and wheat, says this is a mistake; that land is injured by being exposed all winter to the atmospheric influences; that its salts are more readily washed out by the rains, and that by alternate freezing and thawing the land is made too light to produce wheat. He has a small farm and makes more wheat than those five or six times larger. My neighbor states that Fall and Winter plowing have injured the capacity of these lands to produce wheat. His rotation is a clover fallow for wheat followed by corn and then wheat again with clover.

What do you think of this idea?

KELTON.

NOTE BY THE EDITOR.—Quite a controversy sprang up several years ago among the agricultural chemists in this country as to whether it was really necessary that phosphatic materials should be treated with acid or not. One side held that it was sufficient simply to grind them to an impalpable powder, the soil itself doing the rest of the work—that is, putting them in a shape to be taken into the circulation of the plant. A gentleman in this city, whose business requires constant attention to such matters, took the trouble to submit the question to what are generally accepted, since LIEBIG's death, as the most trustworthy authorities, in agricultural chemistry, in the world, namely, Dr. VOELCKER, Chemist of the Royal Agricultural Society of England; M. VILLE, of the Emperor's farm at Vincennes, France; and Prof. JOHNSON, of Yale College, New Haven. Their replies are too full to be reproduced here. The substance is as follows: On peaty soils, abounding in humid and similar organic acids, and also on poor, purely sandy soils, the worst superphosphates, that is to say, superphosphates poor in soluble phosphoric acid, have a decidedly better effect upon the crops to which they are applied than superphosphates rich in soluble phosphoric acid. In the first case, to apply soluble phosphoric acid would be simply adding acid to acid, of which there was already existing too much for health to the land; and in the second, the absence of basic soil constituents sufficient to neutralize the soluble phosphoric acid renders it unavailable as food for crop plants. When these bases exist in abundance, as in clay lands, the safest course is to resort to soluble phosphoric acid, especially if it is desired to have a reasonably speedy return for the outlay. The action of manures is two-fold—first, in rendering available the crude materials in the soil with which they come in contact; and second, in contributing directly to the store.

As to the propriety of exposing broken land to the action of the elements during winter, we can only say that no point in good husbandry has been more generally accepted the world over than this practice. Old GEORGE HERBERT (and the pens of few men dropped words of purer gold than his) says: "Frost is God's plowman." It would seem impossible that any of the soluble salts in the soil should be lost if the land was cultivated to a proper depth. However, the crucible of experiment determines all things, and the world may err even in this.

[For the Southern Planter and Farmer.]

THINGS IN GEORGIA.

This is a terrible year with the planters of Georgia; about half crops of cotton, and prices at much less than cost of production, will cause much suffering and a vast bankruptcy.

The labor question still agitates the people, and will do so, until the landed proprietors cease to tenant and work on shares. Happy I am to find a very decided revolution in the minds of the people on this subject.

The planters of this State are seeding large crops of small grain this Fall, but to cultivate grain in this country for market is, in my judgment, folly. The older Cotton States of this Union will have to become manufacturing along with mixed husbandry. It is idle for us to compete with Arkansas, Mississippi and Texas in raising cotton. We calculate how many acres to the bale; *they*, how many bales to the acre.

The three States named are capable, and will in time, and in a very short time, raise enough cotton for the world. It costs us as much to cultivate an acre as it does them, and one acre of their land will produce a bale, while it takes three of ours to make a bale, with about eighteen dollars for manure.

It is equally futile for Virginia and other Southern States to attempt to compete with the great West in grain raising. All you can do is to live at home, and make all you can by tobacco and manufacturing.

Why then do you Virginians demand such prices for your lands?

A gentleman, a real estate broker in Richmond, sending me a list of James River plantations for sale, puts them at forty, thirty and twenty dollars per acre. What inducements for plain workingmen to buy? Were I a Vanderbilt or an A. T. Stewart, I would buy Brandon, Westover, Shirley and all the rest of those fine old classic estates on account of my undying love for Virginia; but this is a day of utility, a struggle for bread, and if holders of land wish to sell or are obliged to sell, they certainly would serve their best interest to meet the loss, be it real or imaginary, at once; for depend upon it, a crash is approaching that will carry under millions of the best people of this nation.

Nothing will save us from want or general ruin but the most rigid

economy, unflinching industry and the total banishment of show, pride and ostentatious living.

Allington, Georgia.

S. W.

NOTE BY THE EDITOR.—We are sorry our correspondent did not assign the reasons for his assertions. We are altogether more hopeful. The truth is, whatever there is substantial in the future of this country will be found *in the South*. When only two of her crops, cotton and tobacco, sell annually for \$350,000,000, something *must* remain to the people who produce them.

[For the Southern Planter and Farmer.]

SOME POINTS ABOUT THE USE OF COMMERCIAL FERTILIZERS.

Much has been written for and against the use of commercial fertilizers, and the question is still very far from being settled. Some writers throw all the blame of worn out soils on commercial fertilizers, but I do not think this can fairly be done in any case. Soils are never worn out by fertilizers of any kind. That farmers who use commercial fertilizers sometimes exhaust their soils very rapidly, cannot be denied; but the same is true of farmers who do not use them. It is the farmer that exhausts the soil, and the sooner this fact is fully understood by him, the better it will be. At least four-fifths of those engaged in agriculture are ignorant of the elements and conditions on which fertility of the soil depends; and so long as this is the case, the soil will be exhausted from year to year no matter whether they use commercial fertilizers or not.

Every farmer who is well posted on the subject, knows that the productiveness of a soil depends upon the presence of certain elements in the right condition, to be appropriated by the growing crop, and that where there is a deficiency of these or any of them, its productiveness will be diminished to the same extent, and that the only remedy is to supply the deficiency in some way. It is often the case that the deficiency can be supplied very economically by the use of commercial fertilizers, and many who have pursued this course have eventually exhausted their lands; but it is untenable to say that it was done by the use of said fertilizers—it would be more consistent to say it was done by the plow and hoe. Every crop that is removed from a farm reduces its productive capacity to a certain extent, and the only way to prevent its final exhaustion is to return the fertilizing elements taken off with the crop. This cannot be done without the intervention of commercial fertilizers, especially where grain and hay are sold. But commercial fertilizers alone will not do it, although they are indispensable. It is necessary to keep the farm supplied with vegetable matter by turning under pea vines, clover, stubble, &c., and not allow stock to run on it much at any time. Everything consumed on the farm by man or beast should be carefully saved and returned to the farm. Good stalls should be pro-

vided for the farm stock of all kinds, and they should be kept in them when not needed for other use.

The word 'permanent' in connection with fertilizers should be discarded at once and forever. Anything that is permanent in the soil is worthless as a fertilizer. Our farmers must learn that, in order to keep their farms up to a high state of productiveness, they must be constantly feeding the soil; and in order to be prosperous in their occupation, they must be more united, and act more in concert, so as to enable them to take some part in regulating the prices of what they sell and buy.

Owing to ignorance of the principles of agriculture, four-fifths of the present generation engaged in it will go on with the work of exhaustion as long as they live. Much good might be done to check it if the readers of agricultural papers would take advantage of every opportunity to induce their neighbors to subscribe also.

Ashville, Ala.

M. H. ZELLNER.

[For the Southern Planter and Farmer.]

AN EXPERIMENT IN DRAINAGE.

The wheat sowed and corn safely housed, our thoughts should be directed to the preparation of the land for next year's crops of corn and tobacco. These crops in this, the Piedmont section, particularly love the rich bottoms bordering on the streams, making down from the mountains; and while they are usually free from any extensive swamps or morasses, the beauty and uniformity of our crops on them are frequently marred by spots of more or less extent, rendered unproductive by excess of moisture. Many of these spots are isolated, with dry and productive ground all around, sometimes the water shows on the top of the ground, and often its presence is only indicated by its effects on the vegetation. One of these spots I have drained and dried in a very cheap way. The difficulty about its drainage heretofore has been that it was so far from the stream, and so much higher land intervened, that it was not thought that the increase of crop on it would pay for the cutting and maintaining even a select drain through the large extent of naturally dry ground to the stream.

I had started to work on it determined to get rid of the eyesore if possible, when the idea occurred to my overseer, Mr. Sim Flynt, that inasmuch as all the water that rose on the wet spot sunk and found its way to the stream under the dry ground, by which it was surrounded, now if he were to cut a ditch through the wet spot so as to draw off the water and let it terminate in a pit or well in the dry ground between the branch and the wet place, that perhaps the water would continue to find its way from the ditch to the branch in the same way that it had before passed from the wet place. He therefore cut a deep narrow ditch about 20 yards long through the wet land and ended it in a pit 6 feet long, 4½ feet deep, 3 feet wide

in the dry ground, and left the whole open to see how it would work.

Quite a stream of water rose in the ditch and flowed into the pit, covering the bottom to the depth of about 3 inches, but at the end of four days did not seem to have risen any. We then had a quite heavy two day's rain, which saturated the ground and formed as severe a test as our experiment will probably have to undergo, except in times of freshet. Of course we watched the result with great interest. The water running into the ditch had increased in volume but little, showing that its source was not near the surface, and the depth of water in the pit had only increased to about 5 inches, which in a few days shrunk back to what it was before. All of which showed that the natural subsoil drainage was amply sufficient to carry the surface and ditch water both, even in a rainy season.

As this test satisfied me, the ditch was secreted with poles, and the pit was filled with stones, so arranged as to leave as much of the bottom and sides exposed to the water as possible, to within two feet of the top, and then with earth, completely hiding the whole drain and pit.

This was done last spring, and though the past season has been quite a wet one, the crop of corn on this spot, from being an eyesore was changed into the best in the field, having no appearance of water either where the ditch was cut or where it terminated in the pit.

The piece of ground drained was near the foot of the hill about 120 yards from the stream and was lower than some of the intervening land. To have drained it in the ordinary way, I would have had to cut 120 yards of ditch 6 feet deep a part of the way in order to get it 3 feet at the wet ground.

In this way it was done, 20 yards of ditch, 3 to 3½ feet sufficient. The top soil over both wet and dry land is a red clay loam; about 2 feet under it in the wet place is a stratum of white micaceous clay very stiff and seemingly impervious to water, which seemed to rest on the bed rock, though as we did not cut through it, I cannot say how thick it is. This white clay shades off to blueish, and in the dry land either abruptly terminates, or dips under a red alluvial formation, which contains horizontal layers of gravel an inch or two thick at considerable intervals.

I have many other such spots upon which I shall try the same process, and from their similarity to the one mentioned above, I expect to be as successful in laying them. And I have been thus particular about the details, that other farmers who have such ugly spots on their bottoms (or hills either) may judge whether the same inexpensive process might not answer in their cases also.

H. M. MAGRUDER.

Albemarle County, Oct. 30, 1875.

Aim to do some permanent good, that your life may be one of usefulness.

**SPEECH MADE IN NEW YORK BY GEN. FITZHUGH LEE,
ON IMMIGRATION.**

GENTLEMEN:—Some two months ago, a number of persons residing in Fredericksburg, Virginia, and in the counties lying adjacent thereto, assembled in conference with a view of taking into consideration the improvement of their section of the State of Virginia. The termination of the war found them with the same area of surface as at its commencement, not even curtailed by the loss of the forty acres (and mule), so enthusiastically promised by the most violent wing of their conquerors to the negro. Yes, the large productive, profitable estates were there; there in most instances in their former grand proportions and beauty; there I may say, stretched out before their eyes, thirsting for cultivation; there, inanimate, I admit, but speaking almost as to their many and great advantages; there, as it were, ready to uprise and welcome some one who would take care of them; and what could the land owner reply to all that? Sad and sorrowful was his response—I recognize your fertility, I know your profits, I am confident of your ability to repay me, but the disastrous termination of the war has indeed left me financially feeble and unable to employ and pay the labor necessary to your improvement, and your broad fertile fields must lie idle unless I can get some assistance to develop you; manifestly the pathway of hope was illumined by but a single ray of light, but which ray, if properly pursued and followed up, might, like the sound of the day of promise, widen and deepen, until at last it spread out unto a glorious brightness; and what was that comforting, consoling, absorbing thought? Why, that we might try concerted action and truthful representation, bring to our aid gentlemen from other sections, whose means the war had not lessened, and who would help us once more to march along the road to prosperity. Full of such hopes, and as a result of such co-operative views, the Rappahannock and Potomac Immigration Society was organized and composed of the property holders of our district of Tidewater Virginia. A representation of that society is here in your midst to-day, here to tell you how we live, where we live, and what we have, and invite you cordially to come down and see for yourselves the inducements we offer.

Since we ceased to fight each other in our country, two kinds of immigrants have appeared to tell us what they knew. The first, a class unprincipled, rapacious, eager for booty, thirsting for gain, and debauched enough to take advantage of our prostrate condition, to enrich and elevate themselves. They cajoled and tampered with our laborers. By means of Federal bayonets, sharpened and pointed, to maintain party supremacy, they were hoisted into office, and kept there. The damage done to both sections was great. To the masses South, they appeared under the general appellation of northern men, and representatives of your country, which of course was not productive of good feeling; our whole progress was checked and retarded.

The responsibility for their peculations and sins must be borne by

one of the political parties of the country, which, in view of a possible change in the administration of affairs, is trying to unload themselves of them even now. Their presence was most injurious to Southern people of both colors, and thank God, in the language of your own "New York Herald," the 'carpetbag element is fast disappearing from our southern politics.

The second class of immigrants referred to, were those who devoted more time to business, and less to politics, who came to us with the idea that we knew nothing about farming and they everything, and if they had (for example) 1000 dollars, they should buy with it if possible, 1000 acres of land—the more surface for the money, the better off—because their superior energy and knowledge would soon restore it to fertility, and cause it to blossom as the rose.

It is useless to take your time up by telling you that that class of immigrants was not successful either in the cotton, tobacco, or grain growing sections of our country. As a general thing, they invested their whole capital in the original purchase, leaving no reserve to fall back upon, trusting to the first year's yield to reimburse them in whole or part, and as a result of their great agricultural sagacity, they too have left us and are now wiser and I trust better men.

What we really want, gentlemen, and have come upon this trip to look for, are men with a capital, if of only a few thousand dollars, who will expend a portion of it only in the purchase of our tide-water lands, reserving a sum, to provide against the rainy day, and a bad crop year should it come. To all such we can, and will promise, successful pecuniary results—and we confidently assert that for a given amount of capital invested in our river lands, a man can live with more comfort, more independence, and with more returns for it than an investment of an equal amount in any other way. Our grounds are easily cultivated—no stumps or stones; and broad rivers flow ready to carry to near markets for but a few cents per bushel, as to grain, their products; and such is the abundance of oysters, crabs, fish and wild fowl, that ours was the only section of the State, where just after the war, the people felt no apprehension or inconvenience from the scarcity of food to sustain life. With such fertile lands, such a genial climate, with mines of shell and marl and muck, all we want is to get the assistance which would be derived from parting with a portion, in order to pay the labor necessary to be used to develop the remainder.

The City of Fredericksburg, around which this representation centres, has an unrivalled water power, and I am very glad to see present some gentlemen who can explain that much better than I can. It is a city whose refinement and hospitality are proverbial in the State, and its citizens are numbered among the most orderly, industrious of the whole country, bombarded and wrecked by the wrestle within its limits of armies during the war; the fortunes of the inhabitants were indeed crushed—but little being left to begin once more their respective business callings.

Such, gentlemen, is our situation—may I hope you understand it—and our reasons for the organization you see here to-day.

Politically, we are in a prosperous condition—the State is well governed with order and quiet reigning throughout its borders—its debt, by reason of renewed economy and retrenchment and the recent constitutional amendments proposed, is marching to a satisfactory and honorable solution. The great majority of us, I confess candidly, are inclined to think as an eminent American has said, that “the recent financial troubles, the stagnation of business, the depression of all industries, the extravagance and corruption of the public service, the demoralization of the administration, the personal government of General Grant, the third term project, the violation of all law in the policy adopted towards the Southern States as a means thereto; that all of these have filled the people with uneasiness, and they are anxiously seeking a better state of things;” all of which means we desire a change—but that is not going to prevent us from giving a cordial welcome to all bona fide settlers who may come among us, even though they differ politically with us. We want reconciliation to take the place of reconstruction.

Virginia gave to our country, without expecting or receiving any reward, two-thirds of her entire territory; Kentucky, Ohio, Indiana and Illinois rose up from her loins, and even after that one-third more of her territory was seized and taken from her during the late war, and another State carried out—a blow hard to recover from. Yes, that too we are trying to regard as a dead issue, so pressing are the living ones upon our notice. What is left is a goodly heritage, and we come here to ask you to come down and help us enjoy it; for we do indeed regard immigration to our State as the prophets rod, which is to smite the rock of her hidden resources, and cause the waters to flow out for the refreshing and revival of the tribes of her people.

[For the Southern Planter and Farmer.]

SALICYLIC ACID—ITS VALUE IN CONNECTION WITH DOMESTIC ECONOMY AND MANUFACTURES.

BY PROF. J. W. MALLET, UNIVERSITY OF VIRGINIA.

Salicylic acid is a substance which has been known to scientific chemists for a great many years, but like many other materials of practical value, it has long been looked upon as merely curious and interesting to men of science and as having nothing to do with every day life, until lately a careful study of it has shown how it may be prepared cheaply and in large quantity, and has, at the same time, proved that it possesses in a very remarkable degree the power of *preventing fermentation and putrefaction*; a power which may be usefully applied in a number of different directions. Some of these applications are of a nature to render a short account of what is so far known of this remarkable substance not unsuitable for the pages of the “*Planter and Farmer*.”

Passing over older methods of preparing the acid, the following is the process which we owe to M. M. Kolbe and Lautemann, of Leipzig, who have been busily at work upon the subject for the last two or three years. Carbolic acid, now pretty generally known as a powerful disinfectant, is exactly neutralized with caustic soda, the mixture thoroughly dried by heat, and dry carbonic acid gas passed over it, first at the temperature of boiling water and then with increasing heat up to about 450° F. The mass so produced is allowed to cool, dissolved in water, and one of the common mineral acids (sulphuric or hydrochloric) added; a deposit settles to the bottom of the vessel which is salicylic acid not quite pure; it may be purified by dissolving again in hot water, from which it separates on cooling, or, better, it may be exposed to a current of super-heated steam, which carries it along and deposits it in a pure state in the cooler part of the vessel used, while the impurities are left behind.

As commonly sold salicylic acid is a crystalline powder of yellowish color, but when quite pure it is beautifully white and in delicate needles. It can be melted and driven off in vapor by heat; it requires about three hundred times its own weight of cold water to dissolve it, but dissolves to a much greater extent in hot water, in alcohol, glycerine and some other liquids; it has no smell, only a slight sweetish taste, and is *not poisonous*, an important point of difference between this substance and carbolic acid. In the concentrated form it produces a little, but not serious irritation of the lining membrane of the throat and stomach, while carbolic acid attacks violently even the outer skin—in fact, just as common washing soda produces the same sort of general effects as strong caustic lye, but in a much milder and less destructive way, so salicylic acid, which belongs to the same class of agents as carbolic acid, behaves as a much gentler and more manageable material. Whenever any of those changes in animal or vegetable matter which we speak of as the various stages of fermentation or putrefaction are to be prevented or arrested, this new substance may be advantageously brought to bear.

To the surgeon it proves valuable in dressing wounds and sores, and its solution may be used to keep wet the bandage employed.

It has been as yet but imperfectly tested as a medicinal agent, but already results have been obtained showing that when properly dissolved it may be taken in doses of 15 or 20 grains in 24 hours without any inconvenience, while it promises to be of essential service in the treatment of many formidable diseases, scarlet, typhus and typhoid fevers, small-pox, cholera, &c.; in diphtheria it has given very valuable results. It offers similar advantages in the treatment of contagious diseases of the lower animals, as of sheep, and its price is being rapidly diminished so as to make it available for such purposes without too great expense.

In numerous manufactures, such as those of glue, of leather, of the albumen of blood and of eggs used by calico printers, of extracts of dye-woods and of tanning materials, of starch, and gen-

erally of any form of organic matter liable to spoil by standing exposed to air, alteration may be prevented and valuable material saved by the addition of this anti-ferment. But it is chiefly to direct attention to the applications which may be made of salicylic acid for farming and domestic purposes that this little article is written.

In making wine, fermentation may be regulated, and when the proper stage has been reached may be stopped, while many of the after changes and so-called "diseases" of wine may be prevented by the use of this substance in such small quantity as to prove neither disagreeable nor injurious. Special experiment seems to be needed with each kind of wine in order to fix the exact quantity proper to be used, but it has been suggested that in such experiments about $1\frac{1}{2}$ to $3\frac{1}{2}$ grains of the acid (first dissolved in alcohol or strong spirit) to each gallon of wine may be tried with a view to make the latter keep free from further change.

Vinegar may be similarly treated, with rather larger amounts of salicylic acid, to preserve it free from "mother" or mould.

Drinking water may be kept sweet and good, even in wooden vessels, by a mere trace of the acid. In places like New Orleans, where rain water is habitually caught and kept in large wooden cisterns for months, this point becomes decidedly important.

Beverages for the sick, such as barley water, lemonade and beef tea or soup, which often have to stand ready for use for hours of days in hot weather, may be prevented from spoiling by the like means; the same remark applies to vegetable medicines, infusions or barks, herbs, teas, &c. An excellent tooth wash or tooth powder may be made from the acid suitably diluted in liquid or solid form. It has been found that fresh milk to which but 20 or 25 grains of salicylic acid per gallon had been added, when exposed to the air at 65° F., curdled 36 hours later than milk under the same circumstances to which no addition had been made. This delay of the "turning" or curdling of milk may not only prove directly useful in preserving it for drinking at the table, but may increase the yield of butter by affording time for a larger amount of cream to rise before skimming.

The addition to butter itself of 10 or 12 grains of the acid for each pound makes it keep much longer fresh even in hot summer weather.

Eggs have in like manner been successfully prepared for keeping by laying them in water in which the acid in powder had been suspended.

Fresh meat may be placed in a vessel and covered with water, in which as much of the preservative as possible has been dissolved in the cold (only about 1 part in 300) or may be rubbed with the solid acid in powder and the latter washed off when the meat is to be cooked; meat so treated has been proved to keep at least a week in hot weather; the taste is not injured, but the natural red color is in a measure lost, the meat becoming pale or gray in appearance.

Preserved fruits, jellies, &c., may be protected from souring and moulding by a little salicylic acid in each jar.

Starch paste for laundry use may be similarly kept without sourness or unpleasant smell; ink may be preserved clear and free from mould, and mucilage prevented from spoiling by a very few grains of this useful substance stirred into the bottle.

Other applications will from time to time suggest themselves, and numerous experiments may advantageously be made to settle the amount of preservative to use in each special case and the best methods of applying it.

One point should be remembered; that the compounds of salicylic acid with alkalis do not possess the anti-fermentative power of the acid itself, and therefore in using the latter contact with alkaline substances, soap for instance, should be avoided.

University of Virginia.

J. W. MALLET.

ADDRESS OF B. JOHNSON BARBOUR, ESQ., BEFORE THE
ANNUAL MEETING OF THE VIRGINIA AGRICULTURAL
SOCIETY, OCTOBER 27TH, 1875.

When I attempted to measure my own fitness for the duty of my present position, I was somewhat inclined to suspect a keen, though lurking irony in the call made by the Executive Committee of the Agricultural Society of Virginia, until it occurred to me that a hint had been taken from the *coup de theatre* (stage trick) of temperance lecturers, where an "awful example" gives bold relief to some "shining light"; and so I fear my brother farmers who excel in the profession were willing to present me in striking contrast, that their own superiority—

"Like bright metal on a sullen ground,
Might show more goodly, and attract more eyes
Than that which has no foil to set it off."

Presently my wounded vanity offered some mitigation in the suggestion that the call was due, in some slight measure, to a kind remembrance and recognition of the humble but zealous and hearty share I had in the organization of the present system of State Fairs in Virginia. At all events, I think that our present condition, the stormy period through which we have passed, the fearful trials to which our Society, like our State, has been subjected, and the gratifying fact that over all difficulties and obstructions it has reached its majority, and is now firmly established and regarded as a fixed and beneficent institution, justify us in taking a rapid retrospect of its history, from its lusty infancy to the present time; and I might as well just here forestall and deprecate the criticism which ultimately and inevitably must fall upon my diffuse and desultory style of speech. So many topics present themselves, so many causes have combined to produce our present condition, that the difficulty lies in refusing admittance to the multitude, and in selecting the more interesting and important incidents and reflections from that vast concourse of memories which rush with the force of many waters on the mind of any Virginian who has been an actor or interested witness in the events of the past twenty or twenty-five years.

Distinctly I remember (and by the the way, it was in the "bleak December" of 1852) the small and, as I must style it, the melancholy assemblage in the hall of the House of Delegates, of that resolute band who

in the darkest and most trying hours had never deserted the cause of agriculture in Virginia. It was before the days of artificial gas, and a few tallow candles gave us that "transpicious gloom" which old Warburton thought was a better reading than Milton's "Darkness Visible," and made almost spectral figures of the few who were scattered at irregular intervals over the hall, "a world too wide" for this Spartan band. Gleaming through the semi-darkness was the unquenchable fire that glared in the eyes of our venerable President, EDMUND RUFFIN, and his still abundant locks were almost radiant in their whiteness. You can readily believe that whilst it was a determined, it was by no means an animated meeting. Presently there was a little fire, even though it were the fire of indignation, when some of the younger members ventured to suggest that though agriculture and agricultural contemplation might be its own exceeding great reward to those who looked at it as our German friends say, subjectively, that our languishing condition demonstrated the fact that it must be presented objectively to the multitude; and they ventured to contrast our Society with that of Maryland, whose State Fair they had lately attended. They were pardonably enthusiastic in the description of the brilliant scene at Baltimore; they told of the beeves, fat-fleshed and well-flavored; of the lambs without blemish, and the larger sheep, that would have graced Laban's flock or vindicated Jacob's tending; of the crowds of fine horses of every breed and description, for the service or pleasure of man; and that as for fine cows, there seemed to be a row as long and broad as the Milky Way. They said that the rush and clangor and whirr of every species of labor-saving machine was still ringing in their ears; and they essayed some faint description of the *ensemble*, where, beneath a cloudless sky, thousands and tens of thousands of well-dressed and well-behaved men and women were enjoying and adding joy to this brilliant scene. They asked how could such meetings fail to do good mentally, morally and physically? besides the more obvious results. How many good seed, said they, must be scattered, unseen of men, until they ripened into myriads of rich harvests throughout the land. How these annual meetings of town and country tended to break down the miserable prejudices which before had separated them.

Our grand old chief was too much impressed with the value of the pure gold of scientific truth to think that it required any alloy for making it tough enough to stand the wear and tear of the multitude. He despised so much that appeal to the senses which humbler minds require, that it was but a scornful acquiescence which he finally gave to our appeals, and to the last I fear he considered the Fairs as little better than the side-shows which infest them.

A mass meeting of farmers was called, which, strange to say, vindicated its title pretty well, and I am sure that none who shared therein can ever forget the emotions of that spirit-stirring time when that true Virginian and noble-hearted gentleman, J. Ravenscroft Jones, sounded the key-note of triumph by pledging his county for a specific sum of money; and how rapidly the contagion of a good examplespread! How county after county fell into line, until fifty or sixty thousand dollars had been guaranteed before the meeting closed, and we all went back to dream substantial dreams of the assured success of the Virginia State Fair in no transient form, but for an indefinite period, and, as we fondly hoped, with an increasing interest and power.

In 1853, beneath "an October sun," heaven still smiling on a noble and prosperous cause, we had our first meeting; and cold and phlegmatic indeed must have been that temperament which was not thrilled with patriotic pride and pleasure when it looked out upon that animating scene. For six years, with only an occasional check or interruption (for the best plough will clog or jump the furrow sometimes) our Society continued to grow, to fulfill, and even to surpass the most sanguine expectations of its promoters.

It became the trysting spot of the State. Keen but friendly emulations sprang up throughout our borders and in neighboring States. Improved breeds of stock, better and more numerous labor-saving machines were introduced; old systems of husbandry had their defects demonstrated, or their excellencies confirmed; good ideas, happy thoughts, were sent forth, not so much in formal addresses (which, in all candor, I must admit are pretty generally liable to that classification wittily described by Tom Marshall as a parenthesis—which, according to the grammars, is defined to be a thing which can be left out without affecting the sense), but in chance conversations, whose points spread noiselessly from county to county and from district to district, accomplishing more good than tons of congressional *placebos*, those much distributed but little read Patent Office Reports. Not least in the advantages was the renewal of old friendships, which time and absence and many cares had dimmed but not destroyed. And to all, it was a benefit to have the respite of a week from the toils and vexations of every-day life, to say nothing of those more perfect unions which derived their dates from those auspicious days, involving, with the least possible delay, a Clerk's License and a Minister's Benediction. Here, too, the merchant and the farmer learned to rise from the cold, stiff intercourse of the mere business letter to a friendly interchange of views on topics of mutual interest, and to closer communion of sentiment and opinion in matters of state and national importance. Trade thus loses much of its hardness—provincialism much of its prejudice. The townsman learns to take an enlightened interest in the hopes and plans of the farmer, and the farmer in turn learns to abandon that unfriendly criticism of habits and customs, which he finds are none the worse simply because they are different from his own. The Press too, woke up to the fact that Mr. Burke was not far wrong when he declared that in every community the first great creditor is the plough; for whereas they had inserted our first advertisement, as I took care to tell them, between a lot of tallow candles on the one side, and a lot of damaged sole leather on the other, they had come now to treat us with the pomp and dignity of type, giving us, upon occasion, all the emphasis of italics and all the grandeur of headlines.

Thus, I think, might be traced fairly to the influence of our State Fair a fuller, warmer appreciation and development of the inter-dependence of all the different interests of society; a kinder sense of mutual relations and benefits; a warmer glow of friendly feeling, powerful to the breaking down and thawing out of the coldness and jealousy and isolation which had theretofore separated and divided into hostile ranks the persons who, of all others, should be the best and most confiding friends.

I do not say that these fairs are without their drawbacks; in other words, I only claim for them that they are good human institutions. Frauds are still practiced upon the unsophisticated. Moses still meets, under some more specious guise, the worthy gentleman who is forced to

sacrifice his gross of shagreen spectacles, and the greater age of Mr. Flamborough is no safeguard for his younger friend; and I must be pardoned for saying, in no puritanical spirit, but in the fullness of a friendship which ought not to be doubted, that there is a decided and growing objection to the undue prominence that is given to what is euphemistically called in the catalogues Trials of Speed, but which, when brought down to its last analysis, is too much like what was formerly known as Racing; and under that plausible title, which seems to divest it of its grosser features, is not only far more insidious, but perhaps more dangerous than the undisguised race-course—hearing about the same relation to the latter that the lottery system does to the faro table, gradually sapping and undermining the facile character that might have been proof against the broader temptations and more vicious amusements of the former.

With this exception, I think the unanimous verdict will be that these yearly congregations, these nineteenth century Olympics, are of inestimable importance to the State.

In an article of remarkable interest by Sir Francis Head, entitled "The Commissariat of London," he invokes the aid of an imaginary witness standing on the steeple of St. Paul's Cathedral, to scan the reticulated avenues along which the multitudinous and infinitely various supplies of food, animal and vegetable, the substantials and the luxuries, are speeding to that great metropolis; and by the same token the fancy often struck me that I should like, as from some dizzy altitude, to have traced, in happier days, the splendid results of that newer life to which agriculture had been aroused in Virginia; to behold the neater and securer enclosures, the stronger and safer bridges, enabling the passenger to cross in safety where life or limb had theretofore been in danger; the better farm roads, no longer having the approach a reproach to the proprietor; the waving harvest, the fruitful meadows, the laden orchards, the gleaming flocks, the stately herds on a thousand hills, the substantial homesteads, beautified in the spirit of the maxim, that if we would love our homes we must make them lovely; and above all, to feel that these were the unchallenged and unmortgaged homes of hundreds of thousands of free, prosperous and happy Virginians.

As bearing largely upon our present changed and unhappy condition (of which I am to speak presently) I must state my earnest conviction that the failure of Virginia to improve, still more rapidly, was due mainly to two prominent causes, both springing in part from the temperament of her people; first, the spirit of adventure which through several decades, with full and steady streams of emigration, had borne to the West and Southwest large numbers of her most active and enterprising citizens, and to that end tempting and inducing those who remain to burden themselves with a double incubus of debt, incurred in the purchase and possession of these additional lands, when in the majority of cases they already had more than they could cultivate properly and prosperously. I know that it is a very gratifying feeling to see one's line fence moved out a mile or more—gives one a mingled baronial and Robinson Crusoe importance; we have added to our broad acres; we are monarchs of all we survey; but how often has the broad acre brought the narrower crop; and the tax collector, following closely on the heels of the surveyor, rudely breaks in upon your baronial feelings, and leads you to suspect that your pride has expanded more than your purse. Our people have never been sufficiently alive to the great cen-

tral truth of agriculture, that deep tillage is more than broad acres; that it is with farms as my Lord Bacon said it was with nations: "Their real power is to be measured, not by the scale of miles but by the scale of forces." In illustration, I have in mind lands bought seventy years ago, (with money borrowed at 10 per cent. interest) which have never yielded a dollar of profit, whilst the taxes and simple interest on the original investment have more than quadrupled the sum. And on the other point, I know of lands in a fine wheat region which, in the aggregate, never produced more than 10,000 bushels, and that but in one single year, and yet when divided into three portions produced regularly 15,000 bushels per annum. To hold and cultivate too much surface has been one of the great curses of Virginia; and yet we used to have enthusiastic political economists who rated a man's wealth in proportion to the land he held, a proposition, which pushed to its legitimate conclusion, would prove that Adam and Eve were the wealthiest persons that ever lived.

Another curse to Virginia agriculture was the improvident use of Peruvian guano. That grand old growler, Dr. Johnson, (in the climax of his indignation that the colonies should dare to resist Parliament), said in effect, that as yet no part of the world had any reason to congratulate itself that Columbus had discovered America. Be this as it may, I certainly think that Virginia has no reason to congratulate herself upon the discovery of the Chincha Islands. Do not understand me as attempting to underrate the power of this wonderful agent. If we had been wise in our day and generation, if we had appreciated its wonderful power properly, if we had husbanded its magic influences, if we had studied the proper combinations with the less brilliant, but more substantial phosphates, if we had made it the basis of improvement, instead of hailing it as omnipotent, if we had paused to think for a moment, we should have realized the warning truth that the supply was in the nature of things limited, and that the wonderful source, whatever it was, might suddenly cease. Then, indeed, had we proven ourselves worthy of this miraculous interposition in behalf of our wasted and impoverished lands. For the Peruvian had, centuries ago, announced the proverb that guano, though no saint, worked miracles. We had thousands of acres too low, so to speak, to respond to any other quickening power, and here was the golden opportunity of bringing the dead to life, of placing a nucleus of improvement where utter and hopeless sterility had prevailed before. As it was, Virgil's "*O fortunatos sua si boni norint agricolas,*" might, without any violence, be rendered: "Oh! too happy Virginia farmers, if you had only known how to use Peruvian Guano!" By an unfortunate natural selection it seized its appropriate victim, the sanguine and imaginative Virginia farmer; scornful of details, ever praying for some royal road to the fertilization of his lands, and to the possession of the purse of Fortunatus; and guano seemed exactly to fulfill these important duties. We raved about it; I am responsible myself for some very ambitious rhetoric upon the subject. In congratulating my countrymen, I remember how I told them that far away, thousands of miles from our shores, a kind Providence had withheld all rain from a group of islands, that in our own land it might crown the barren hill with verdure, and clothe the naked waste with golden harvests. I boasted how it would enable us to

Lead Ceres to the black and barren moor,
Where Ceres never gained a wreath before.

My brother farmers, all as frantic, joined me in this agricultural frolic. We laughed to scorn the idea that grass was the only true foundation of permanent improvement; *that* we thought was uttered under the old Dutch dispensation. If a few had lucid intervals and ventured to ask if there was no danger of the supply giving out and leaving us in a seven-fold worse condition, we either gave a contemptuous negative, or said that if the supply did become a little slack, we had no doubt that the—well! Epizooty would soon break out among the birds of the Pacific, and make all things lovely again; or else, by analogy, that if California failed, Australia would turn up at the right moment. Meanwhile we drove on fast and furious. The farmers' philosopher's stone at last had been discovered. The distinction between poor land and rich land had been broken down; indeed it was seriously urged that poor land was perhaps better than rich, as being more prompt and congenial in its response to guano, and I well remember the merry twinkle of the eye with which my honored and venerable friend, the late Judge John Robinson, of Richmond, said that he had long had a very poor piece of land which he wished to sell, but that conscientious scruples had theretofore restrained him from saying one word in its favor, but that now, with a light heart, he should advertise it as "eminently adapted to the use of guano." Hope looked joyously into the future, and told the flattering tale that broom-straw was soon to be a thing of the past. Gullies, under the gentle surgery of this great doctor, were to be speedily healed by the first intention, and all gauls were to be suddenly subdued by the *veni, vidi, vici*, of this agricultural Cæsar.

Instead of using the moderate solvent we always exhibited heroic doses, and so we wasted it with a lavishness that to our sobered senses now brings the unavailing reflection that it was little short of madness, and its intoxicating influence was two-fold—moral as well as physical; for even where the fancy did not outstrip the actual result, though the "exuberance of the imagination were not betrayed by the treachery of the half-bushel," yet we became painfully oblivious to the fact that the merchants were as much interested in the result as ourselves, and that under the influence of guano our various accounts were growing quite as rapidly as our crops. An equally fearful offset was the neglect and contempt into which the domestic sources of fertilizers fell, insomuch that an enthusiastic convert once gravely told me that the effect of domestic manures being infinitesimal, and the labor of using them so utterly disproportioned to these results—he did not consider them worth hauling 100 yards, and with the exception of one particular class, not more than 50, and as his enthusiasm has carried him into the trade of vending under the new prescription, I fear that he is more enamoured than ever of his delusion.

In the midst of all these bright dreams, when Virginia seemed to be smiling with pleasure and waving with fertility, the tocsin of civil war was sounded: the sun of our prosperity went down and only rose through five dreary years to the bloody dawn of an uncertain day. Not mine to speak or yours to hear of those sad times, except as intimately connected with our profession. We could have no intelligent opinion of our present condition if we did not investigate all the causes leading thereto; and the first step in successful reform consists in plainly seeing and boldly stating things as they really exist, without falsehood, suppression of the truth, or illusion. We have already suffered too much in the effort to cheat

ourselves—in speaking smooth things and prophesying deceptions.

With the rapid retrospect I have taken, we shall be better prepared to estimate the true state of affairs, when peace, so-called, came upon us, not dove-like, as the poets love to paint her, but rather, as we are forced to admit, in the similitude of a hawk, keen-eyed and ravenous for the remnant of the precarious harvest which the sword had left ungleaned. History had made us painfully familiar with the horrors of *flagrant* war. How the Palatinate was ravaged; indeed, how our own beautiful Valley was desolated by the red hand and iron heart of the remorseless subaltern of a congenial chief. But history has never brought to me so contemptible and dastardly a conclusion as was here presented, when the government of a people, proud and tenacious of its position among the nations of the earth, descended from its conquering car to doff its military trappings, assume the disguise of a detective, lynx-eyed for each lean mule that perchance was branded with the magic U. S., or to resume the ownership of every crazy old wagon left behind on former occasions, when important business had imperatively demanded a rapid return to some old base, or the speedy adoption of a new one. I have said that history has never furnished to me any parallel of this; but the speedy change of costume and *role* recalls the pitiable spectacle it was once my sad fortune to behold, when on his benefit night, the elder Booth, turned from the death-scene in Richard III, to enact the humiliating part of Jerry Sneak in the Mayor of Garrett. This threatened to be the *coup de grace* to Southern society, for we did not know but that it was the premonition of a fuller and completer confiscation, and we felt that the only badge of that aristocracy whose imputation is the stale staple of so much northern wit, and the only form of heraldy left us, was to adopt and write above our lintels the motto of the Warwicks: "*Vix ea nostra voco*"—we can scarcely call these things our own—and only those who can recognize the full truth of the declaration of the great Napoleon that "Civil liberty depends on the security of property," will fully appreciate the extreme torpor which now fell on the Southern people. It was already a land of lost hopes and broken hearts, as far as the aged and even the middle-aged were concerned; but it seemed as though it were the policy of the government to break the spirit, even the spirit of the youth—that spirit which alone makes a country, and without which every thing hastens to decay and desolation.

As ever happens in the mingled web and woof of human affairs, there was something comic to relieve the sadness. I will not harass that favorite old quotation about "the sable cloud's having a silver lining," for that, even in metaphor, would have been too violent a figure; for so entirely have the precious metals in the form of coin departed from our region, that doubtless there are many well-grown youths and maidens, who, if suddenly confronted with them, would be puzzled to answer the question addressed by the tempting Pharisee: "Whose is the image and the superscription?" But there was something of ludicrous relief in the uniform dilapidation and decay of nearly everything pertaining to husbandry, but especially in the more pretentious implements which had once purported to be labor-saving machines. Frequently they lay rotting and rusting in the open air, remote from the barn as though in the plenitude of our former lavish style we had provided a set for each field; but more generally there was to be seen on each estate some dingy, leaky and altogether deplorable shed or vacated cabin which might, with

strictest propriety, be denominated an *agricultural cemetery*, sacred to the memory, and containing the remains of sundry disabled and defunct implements; *videlicet*, probably an ancient drill, perchance with one wheel off, taken to supply some sudden calamity in a decrepit cart or carriage, the sowing arrangement so fatally deranged that it would only send down the grain by eccentric jerks, or not at all; corn planters that had become sowers, at the rate of about five bushels to the acre; combination mowers and reapers, the combination being against the unfortunate owner, and warranted to break down or get out of order every fifteen or twenty yards; ploughs without handles, and mould-boards without points; separators that left half the wheat in the heads and half the chaff in the modicum of grain they threshed. Such, in the main, was the *materièl* with which we were expected to commence an entirely new system of agriculture, with the lively prospect that the best or rather the least worn, of these, unless put under lock and key, would, under the ill-counsel of a dark night, betake themselves to another system of agriculture, just then being inaugurated. We may, indeed, say that ours was a condition too melancholy for laughter, too ludicrous for tears. Our lands ravaged and wasted; the enclosures of vast tracts of country entirely destroyed; some sections so nearly deforested that not enough of trees remained to mark the warriors' graves beneath them; a currency that had passed away like a scroll; our entire labor-system destroyed as by an earthquake's shock, and our helots tempted to revolt as were Sparta's at the fearful moment (the physical prefiguration of our calamity) when the rocky soil of Laconia was rent and Mount Taygetus, torn by repeated convulsions, hurled its fragments into the midst of Lacedæmon, burying alike, men and treasure; but, with them, as with us, creating no chasm so dark and wide as that between the master and the former slave. Equally may we claim that history presents no spectacle more sublime or pathetic than ours. A capital in flames; a desolated country, still trembling beneath the fling off of infinite cavalades and the tread of innumerable armies; a destitute and mourning people, weighed down under the sense that all for which they had fought and sacrificed, was lost; but with a sickening sense of deeper humiliations, and more intolerable mortifications, not faintly foreshadowed, as still to come, every moment bringing the keener perception of their disastrous extremity, the fuller demonstration that they were still contending with a government who came less to succor than to be revenged; who applying their wondrous inventive powers to systematic torture, and finding fresh stimulus in scenes that would have totally disarmed an enmity less deadly than theirs; who tramping ruthlessly upon the institutions, habits, customs and feelings of their victims, have inflicted upon the South, what, in all calmness, and with all the intensity of conviction of which I am capable, I must denounce as the most cruel, cold-blooded and complete revenge ever inflicted, by a government claiming to be civilized, upon a conquered and prostrate people. I desire to repeat this with emphasis and deliberation, and as a consequence to declare equally my conviction, that the Northern government has committed *the* crime of the nineteenth century in the manner and time of emancipation, coupled with the legislation, precedent and consequent; and I say this as I honestly believe, in the interest of all parties, of the masters and the servants, of the North and the South, and of the whole nation. I have nothing to say for or against emancipation, pure and simple; nor have I time,

or consider it important or necessary, to discuss the relative merits of free and slave labor; nor need I attempt to mete out the comparative responsibilities of North and South as to the existence of slavery on this continent. Let that pass too; enough for us to know that by community of action and interest, it was here. Enough for all to know that while the Roman and Saxon slave, and Russian serf, when released from slavery, are susceptible by generations of improvement, of rising to and mingling with the blood of the superior race; that nature has placed no irrevocable bar there, whilst she has stamped the African to a separate existence, and that by God's everlasting decree, the two races could never mingle here, until light and darkness commingled shall make twilight brighter than day. The people who are so fond of quoting the glittering generality which constitutes the overture to the Declaration of Independence must now believe that Mr. Jefferson spoke the words of literal prophecy when he volunteered to tell the Count de Marbois, that the two races could never live together upon the hypothesis of a practicable equality; that the memory of collisions, the reciprocal and ineradicable prejudices, the real distinctions made by nature herself, would divide us into parties and produce convulsions, which would probably never terminate, but in the extermination of one or the other race. I have not struck the chord of your feelings, which vibrates with this mournful monotone, simply to vex the air with idle complaints. I am not seeking to revive a dead question, but one that is fearfully alive—as fearfully and actively alive as is Vesuvius to Naples, or Ætna to Sicily. If the South, by free and unbiassed decision had determined that the people brought here in a servile condition might remain upon the dread experiment of a political and social equality, then the danger would have been of our own choice. It was a question which each people had the high and undoubted prerogative of deciding for itself, and it was but gross tyranny when decided by another; for outsiders to force the two races into an unnatural and abhorrent union; to trample upon the feelings, habits and ingrain prejudices of one race, and fill the breasts of the other with vain hopes, vain aims, inordinate desires; to violate logic, reason, common sense, and common humanity, by inviting the unequal contest between the race which has been on an ascending scale for 1000 years, with a race that but yesterday was in bondage; to seek in the bitterness of jocularly to yoke the thoroughbred and the dray horse: to seek the wanton humiliation of a people, whose sin was only the effort to obtain that separation in liberty, which their conquerors now practicably inflict in subjection; to set back the dial of their country's progress, whilst they attempt to reverse the fiat of nature, meanwhile shutting their eyes to the daily and hourly demonstration of the absurdity of their plans: does not this constitute before God and man *the* crime of the nineteenth century? And standing in the full blaze of our boasted civilization, with the proofs of their criminal error, of their foul outrage upon a brave and noble people, written in the paralysis of a whole continent; written in the languor and prostration of a people eager to be released from the spell which benumbs their faculties; with the potentiality of scenes by the side of which the horrors of St. Domingo would fade into insignificance, and which are only kept back by the prudence of a people whom they have sought, as it would seem, to sting into ungovernable madness; to see all this and yet through hate or hardihood, or both, to refuse the simple and patient remedy—does not all this justify me in

saying and repeating that the Northern government has committed *the* sin of the nineteenth century? that it has inflicted and is inflicting the most cowardly, cold-blooded, and complete revenge that a nation, calling itself Christian, ever worked upon a prostrate people? The Knout of the Russian inflicts more temporary pain, the Bow-string and Bosphorus of the Turk is more severe and silent and secret; but the most cruel punishment that one people can inflict upon another, if there be sensibility at all, is the slow, insidious sapping of the spirit—for, I repeat, that it is the spirit which makes all that is valuable in a people—for without it you may have peace, but it is the peace of apathy, of a dismal, cold, dead uniformity of servitude. There was a time with our Northern rulers, when if, as they are so fond of quoting and so slow of proving, the hour of triumph had been indeed the hour of magnanimity, all the clouds now lowering with fearful portent, might have been dissipated; there was that golden moment for reconciliation which comes but once to individuals or to nations, when every question of discord might have been solved, and the nation checked, as it were, for a moment, like our giant Mississippi by some thwarting islands, would soon have been sweeping along with its wonted volume, and resounding again with its mighty music. But, alas! in the sterner and more protracted trials decreed for us, we had to supply another instance to that mournful catalogue which proves

“How nations sink by darling schemes oppressed,
When vengeance listens to the fool’s request.”

There was a man who had only to stand by his own thrilling cry “*Let us have peace!*” and give, as he only could have given, order and repose to a country so great and distracted as ours, and there is only Washington whose name would have stood higher in the records of humanity. But, alas! it was either his sad fate not to see; or seeing, not to recognize, that higher fame which even in imagination makes the deeper condemnation of his treachery to himself and to his country.

The truly great man has yet to come who, like Edmund Burke, shall declare that “nothing less than *all America* will satisfy him.” We have found by long and sad experience that the nation in its true sense will receive no aid from one whose ambition even is but the *vis inertiae* of a sensual nature, of a man who has so little appreciation of his high position and solemn duties that, as yet, he has only made himself known personally to a large portion of the country by the threat or actual proclamation of martial law, or the presence of his legions in the halls of Southern legislatures; who exhibits his sense of justice by allowing the chief mining district of the country to remain in open insurrection for 8 or 10 months; murder stalking unchecked, and arson unpunished; sacrificing the interests not only of the people immediately concerned, but of the nation to the amount of millions of dollars, whilst the chief magistrate of the country smokes on serenely over this state of affairs, but is very willing to employ the whole machinery of the government, and to forward every available soldier upon the first notice of a drunken brawl in Mississippi. What hope have we from a President who, from his temporary residence in Washington, has the State of Virginia spread out like a panorama before him, and yet in six or seven years has only found time to make one trip, and that so flying that it would seem to have been done on a wager as to the shortest time within which a traveler could cross and recross the territory of Virginia? What hope can

we have of a man who can travel over twenty degrees of longitude to attend a festive gathering, and yet cannot traverse willingly one degree of latitude in the interest and for the pacification of his country? And what shall we hope from him who, even at the festive board was only stimulated in his first inspiration to sneer at the people whom he had overwhelmed? What hope have we from a President whose study of commerce is restricted to a dreamy, listless survey from the verandah of his marine villa of the wild and weltering waves of the Atlantic? What hope have we from a President, who, in the same spirit that Walpole told George II. that he should endeavor to forget that he was the elector of a small German Principality, and remember that he was the sovereign of a mighty empire, should be implored to forget that he is the owner of a villa at Long Branch, and remember that he is the chief magistrate of what is a great and ought to be a united country? What hope have we from a man whose idea of logic begins and ends with the selfish syllogism that as he has had possession of the White House for two terms, therefore a third term is a natural conclusion? What hope have we from a man who has so little appreciation of the dignity and propriety of his situation that if the Presidential mansion, like the Vatican, had 3,700 chambers, he could yet fill them all with a host of relatives in transitu to office! Caesarism in its truest and best sense we could stand. It would be something to feel that though in bonds, we were Romans and might appeal to Cæsar. An elegant writer has said that if to Caius Julius, Rome forfeited her dowry of civic purity; if for him she first unloosed her maiden zone, yet we might plead as Faulconbridge, for his mother, that he was the greatest of her wooers and that such a sin was self-ennobled; but it is an insult to call that Cæsarism which is but the synonym of corruption, and under whose influence our national bird wheels lower and lower, and with an utterance that is rather the scream of the vulture than the cry of the eagle. When we find that under such a Cæsarism, corruption winked at if not shared in high places, is pervading the body politic and oozing at every pore, and that the party which claimed to be the exemplar of purity and patriotism has acted since its accession to power more like a set of burglars who have broken into a house, than like the rulers of a great country, we may learn to what base uses the name of a great but generous tyrant, can be prostituted.

Two years ago we saw this whole country suddenly prostrated as by a thunderbolt. Up to that time everything had seemed to prosper with the North. They had assumed that they would keep one half, and that the mainly productive half, of the nation poor, whilst the other should revel in the redundant wealth accumulated during the war. They seemed to be ignorant of the simplest rules of political economy, and assumed that, though prostrate, we could still be tributary. By the overthrow of the Confederacy, our currency, as I have already said, had passed away like a scroll—a currency which, however inflated, still involved all our productions and earnings for five years. Our labor was gone. In short, as I have already declared it was a social and political earthquake. All the money was one side of the line; and they fondly and absurdly supposed they could keep it there, or only dole it out twice a year to move the cotton of the extreme South or the grain of the West, but soon to be restored to New York and serve as counters in the great gambling operations of New York; but the bubble burst at last, and instead of analyzing the question, sticking still in secondary

causes, they persuade themselves that a resumption of specie payment is only necessary to restore prosperity, and in their wisdom they have named a day three years hence when it shall take place—about as absurd as though they should order an eclipse, or any other natural phenomenon. Now I know that, as Sydney Smith said, it was considered very impertinent in England for anybody with less than £2,000 a year to have an opinion, so it is still more insolent for a Southern man to express an opinion on financial topics; but, when the grievance is so glaring that none but those wilfully blind can fail to see it—when history so plainly points the moral and remedies of similar embarrassments, I trust that even a Southern man may be allowed to speak the obvious truths as they present themselves to his mind.

Can any one doubt that we are now suffering from the reaction of the war—a reaction magnified by absurd, and what I must denounce as unjust and malignant legislation? If the North had not been blinded by hate, it would have seen that interest, if no higher feeling, demanded that they should have lent a helping hand. True magnanimity would have said at once,

“Ye are brethren, ye are men,
And we conquer but to save,
So peace instead of death let us bring.”

But let us throw magnanimity out as an unknown and purely imaginary thing; self-interest plainly and undoubtedly required that the South should be aided even for the purposes of production. But what was done? Every thing that hatred and low-flung suspicion could suggest. Our slaves put virtually over us; seedy and needy proconsuls, so-called governors, men by whose side even Verres would appear respectable, sent to insult and to plunder us, and by way of climax in this direction, Mississippi is still cursed with the son-in-law of that infamous general known to this generation as a man whose multitudinous silver-service is marked with every letter of the alphabet except the letter B, and who, on the historic page, will stand unrivalled as a general who burnt more powder, killed fewer men, and insulted more gentlewomen than all the scoundrels of the past—Haynau and Underwood included.

As I intimated, in commencing, the number of topics is so great, that I can only glance at some of the more prominent, but I cannot neglect one subject of prime and vital importance.

The excess of lands, which I have referred to, already great before the war, was fearfully increased (in proportion to the population) by the breaking down of our labor-system—and if the Northern people and Gen. Grant had desired to aid the South, and through it the nation, they could, without detriment to themselves, have compassed it by promoting a generous immigration to the Southern States, still leaving an ample share of the incoming population to themselves. They might have acted towards us so as to soothe as well as succor, if they had encouraged a generous immigration to the South.

But so far from this, every thing was done at home and abroad to obstruct, and if possible, to prevent it. Their agents abroad whilst picturing the fatness of the Credit-Mobilier's lands, the social merit and pecuniary promises of Duluth, and the semi-tropical climate and productions along the Northern Pacific Railroad, were instructed to make a dark back ground of the South, to represent that whatever might have been its former glories, “something ailed it now, the place was cursed,”

as indeed it is with a "Brother's Curse." And the President's spokesman and confidential friend, Gen. Butler, held out in so many words, the hope that the day might not be far distant when the Northern army might again descend, taking with them, this time, the *Surveyor and his Chain*—in other words that a partition of Southern lands was no improbable event. Could any better plan be devised for deterring immigrants than this threat? to say nothing of the stimulus it gave to domestic cupidity—a cupidity already whetted by such papers as Harper's "Journal of Civilization!"—which coolly suggested that capitalists should "bide their time" till Southern poverty should force a wholesale auction of Southern property.

I have no hesitation in declaring my firm belief that the South has been more injured and the national wealth thereby more largely affected during the last seven or eight years than during the whole war, including what may be styled its legitimate and inevitable effects, and equally I believe that the present prostration might have been largely diminished if the government of the United States had pursued the course dictated even by a selfish attention to their truest interests. Equally I believe that this idle proclamation, to which I have referred, of a proposed return to specie payments, will continue and aggravate the suffering; Capital, naturally and proverbially timid, will continue to withdraw itself, and the idle capital that such men as Carl Schurz and Governor Dix and Reverdy Johnson adduce as an argument against what they style inflation, is a proof that some ruinous abstraction of vitality is going on. To point to piles of unused money as a proof that it is not needed, is about as sagacious as Dr. Sangrado pointing to the half gallon of blood he had abstracted as a proof that the patient did not require it. And in proof of my other statement that the announcement of a resumption of specie payment is a ruinous measure, I would be glad if time allowed, to give you, from Macaulay's history, what, *mutatis mutandis*, is a perfect parallel to our present condition. Macaulay is, I believe, considered generally but as a picture painter, and because he has described the Court of Charles II. with the gaiety of a Watteau, and the Black Holé of Calcutta with all the sombre power of Rembrandt, he is supposed not to have the requisite dullness of a historian; but those who will study the financial history of the reign of William III. will find, I can assure them, the most thorough elucidation, not only of incidental but of all the great fundamental principles of finance, and coming back to the special point to which I have alluded, they will find that the agony of three months in the adjustment of the currency was nearly fatal to England's very existence as a nation. What, then, shall we expect from the delay of three years, on the back of a war which, whether we look to the breadth of its theatre, the numbers engaged or the interests involved, is the mightiest the world has ever known? No, gentlemen, if the North wishes true peace and genuine prosperity, she must abandon her present policy in all its prominent features. If she wishes her currency restored, she must cease to discredit it herself in refusing to take it for customs. She must (gradually to be sure) substitute specie for the miserable, contemptible fractional currency which develops but discredits Mr. Webster's famous phrase that he wanted a currency which had the "odor of nationality." In truth, only specie enough is actually needed for the change of the country, and if all the notes below ten dollars were gradually retired, the specie would immediately rush in to fill

its place. Aristophanes, two thousand years ago, noticed and criticised the fact that bad money always drives out good, though he ascribes it to the same perverted taste of the people which led them to banish Aristides and kill Socrates, and surrender themselves to the guidance of such demagogues as Cleon and Hyperbolus. Though his political economy be wrong, there is so much of truth inherent in his verses, that I must give them to you, not in the crabbed original, but in a graceful translation, (kindly furnished me by our accomplished Prof. Gildersleeve):

“ Oftentimes have we reflected on a similar abuse,
In the choice of men for office, and of coins for common use;
For your old and standard pieces, valued and approved and tried,
Here among the Grecian nations, and in all the world beside,
Recognized in every realm for trusty stamp and true assay,
Are rejected and abandoned for the trash of yesterday.
For a vile adulterate issue, drossy, counterfeit and base,
Which the traffic of the city passes current in their place,
And the men that stand for office, noted for acknowledged worth,
And for manly deeds of honor and for honorable birth;
Trained in exercise and art, in sacred dances and in song,
All are ousted and supplanted by a base ignoble throng.”

[Frere's trans. of *Frogs* of Aristophanes. vol. 3, pp. 278-9.]

Equally is it necessary that the present National Bank system should be abolished, and the more satisfactory if not safer system of one governmental currency be adopted. When we take time to consider, we know that the bank-notes are guaranteed by bonds, and, indeed, it is said, that by a funny financial paradox the notes of a broken bank sell for a little more than the notes of a solvent bank; but the people have grown tired and suspicious of the banks, and look now as regularly in each morning's paper for the announcement of the stoppage of one of them as they do for its mimic representative, the explosion of a kerosene lamp. Establish a currency with the broad seal of the government and of no other description—stop talking about it, and as far as the currency can right us, all will be well. There would not be the same affection for it, of course, but the greater reliance would be in some measure like that of the good old rebel who, when some little cock-sparrow of a lieutenant said his pass was not regular, replied in amazement: “Why, mister, hain't it got Mars Bob's name on it?” “Yes!” said the lieutenant, “but still it's not regular.” “Why, look-a-here,” said old Johnny, “I should een-a-most think I could get into heaven on a pass with his name on it; and that,” he added, “is what's the matter with this Confed. money; if the notes had Mars Bob's name on them, they'd be as good as gold.”

If time allowed, I should be glad to speak somewhat more in detail on this subject, and to expose the unfairness of the advocates of a pretended resumption of specie payments. It does not require learned essays to prove the advantage of a good specie basis; and to talk of any other measure of value were as absurd as to propose a new mariner's compass. But after all, we must remember that no country in the world has, or could have, an actual equivalent in coin or bullion for its currency. If England, for instance, has an apparent reserve of 11 per cent. of cash, it is only apparent, for this reserve has to meet the liabilities of every bank in the United Kingdom. And if France makes a better show, it is only because that, in addition to the thriftiness of her people, she has revenged her disasters in the field by cornering Germany in the money market, and making Berlin tributary to Paris in

the matter of silver. But I will not extend the discussion of this topic too far, nor weary you with columns of figures, for at best the currency is but a secondary question, or, to speak more correctly, it depends almost entirely upon a restoration of confidence between the various members of our country; nor is there any likelihood of a return to what is termed specie payments, or true prosperity in any branch, until this happy result is reached and the congestion removed which now threatens apoplexy to one side and atrophy to the other.*

If the North desires a genuine prosperity, it must cease to legislate as though the nation stopped at Mason and Dixon's line; as though all below were only outlying provinces. Is there one amongst us who has failed to observe that in all things at Washington there is a studied, we may even say a contemptuous, restriction of the discussion of national topics to that portion of the country which was victorious in the war? I need not dwell on what might be termed the bitter humor of legislation, whereby after a successful war for the union, the "rebel" States were declared out of the Union; nor need I do more than recall our own immediate case, when we were kept just long enough in the Union to be divided, with the result that one half of us fell into and the other half out of the Union. Passing over these amiable eccentricities, I must ask if you have not noticed that in the main the South is spoken of very much as Russia regards Poland, the Spaniards Cuba, the French Algeria? Sometimes this spirit has a ludicrous manifestation, as, for instance, in a paper which, though edited with marked ability, does not vindicate its comprehensive title of the *Nation*, and puts on even more than its ordinary supercilious or patronizing tone in speaking of the South. Not long since, in the notice of some horse-book, it said: "Now we as a people do not ride much." Just think of such a remark, when the people of the United States includes ostensibly a dozen States, where, except in travel, the chief style of locomotion is riding—of a people who take to riding so young that in a short time it is as natural as to draw the breath of life. If this cockney critic could attend our Fair, I think he would acknowledge that there is still some portion of the people who retain what old Ben calls,

"The Centaur's skill, the art of Thrace, to ride."

And might we not say, in strictest truth, that if the strain of Bucephalus were repeated ten thousand times, we could still furnish young Alexanders enough to tame and master them? Methinks the writer of this article could never have heard how some men rode certain black horses about fourteen years ago, and that there are other plains than those of Marathon and Blenheim, where superstition nightly hears the neighing of chargers—still sees, with heated fancy, the rushing squadrons of spectral war.

*If time allowed, and an array of figures were not so proverbially tedious and odious to a public audience, it would be easy to show how entirely delusive are the examples offered by those who have cunningly perverted our prayer for delay and plea against haste into an imputed desire for inflation. It could be demonstrated that Sir Robert Peel's bill (1819) for resumption in 1825 of specie payments under far more favorable conditions than ours, was the obvious cause of the widespread bankruptcy which followed in 1825; and that the change, effected by the same statesman (in 1844), by which the issue and discount departments are separated in the bank of England, has so far failed that in the space of twenty years it has been necessary to violate the law three times, and then relieve the business community (not by contracting, as our financiers would have us do, but by a generous issue of exchequer notes in sufficient quantities to relieve the pressure. Equally would it be competent to show that the plea of Schurz, Dix and Johnson, that there are large sums of money lying idle, is about as satisfactory and sensible as the remark of the poor, simple Marie Antoinette, who, when told that the Parisians were rebellious from scarcity of bread, cried, "Why, then, don't they eat cake?"

To sum up and close: There can be no perfect union and no prosperity for which a freeman cares, so long as this assumption of superiority prevails. Nor is it sufficient to think that all difficulties can be removed by a Bunker Hill apotheosis, so long as they return to the same course of insult and injustice. These beautiful sentiments must become fixed in action before we learn to value them very highly. As far as I have seen yet, they are all of that same type of mournful evanescence, and call for a similar cry of lyrical despair, as when

Hans Breitmann gife a barty;
Where ish dat barty now?
Where is the lofely, golden cloud
Dat float on de mountain's prow?
Where is de himmel strahland stern
De star of de sphirits light?
All goned afay mit de lager pier,
Afay in de ewigkeit.

They may have Centennials and every other style of outward show, and we may go to them, but until there is some vital and substantial change of treatment, there will be a hissing cry in their ears, "Yours is but a rhetorical liberty—ye are, but the hollow chanters of a hollow Republic!" No, my friends, there can be no mere sentimental settlements of troubles. I was taught from my earliest youth to love my whole country, and I trust the day is not far distant when again it will be a joy to me wherever I go, by fertile field or prosperous village or in stately city, to feel a joy in the thought, this too is my country; but I should do injustice to my nature and to my own people, if I should gloss over the wrongs of my State. Nothing is to be gained and much may be lost by hypocrisy. When we find that it is neither in a pitying or patronizing spirit, but with a determination to remedy, as far as possible, the evils of the past, and to give the surest pledges of security for the future, then, and not till then, can we sincerely say "give us your hand my friend and brother."

Until that time arrives our duty lies here in Virginia, and thanks be to God, though her fields were ravaged and her hearths made desolate—the one can be covered with verdure and harvests, and the Great Comforter will bring peace to the other. Though our capital was swept by fire, it has found beauty for ashes—and she has jewels of which neither time and violence can rob her—the story of her defence, of her long agony and transcendent woe, can never die. Imperishable, too, will be the fame of her worthies, and we do well yearly to assemble the youth of Virginia to catch and renew fresh love and zeal for the Mother as they gaze upon the lineaments of the great men grouped here in monumental harmony and grandeur, not least among them, him * whose effigy was yesterday unveiled—a man who, for the land he could not save, was well content to die, and to die on the scene of his glory—the death which the God of battles would seem to reserve for his most favored sons, whether on sea or land, on the blue waves of Trafalgar, on the heights of Abraham, or amid the forests of Virginia. Of a truth may we say of him:

Sweet in manners, fair in favor,
Mild in temper, fierce in fight,
Warrior nobler, gentler, braver,
Never shall behold the light!

*Unveiling of Jackson's statue, October 26th, 1875.

From the history of these illustrious men, the rising generation will learn the glorious lesson that Virginia will never without protest, if she be powerless, consent to be humiliated or degraded; and that whilst, with generous alacrity, she recites the praise of other States for various deeds of high emprise, she can never forget that from her origin it has been her proud privilege, as though consecrated by God from generation to generation, and from age to age, against tyranny in every shape, to defend truth, honor, religious liberty and constitutional freedom, and even in her poverty and sorrow her heart still throbs with the immortal hope that through all the ages yet to come, she shall still be their bright exemplar and faithful custodian.

NOTE BY THE EDITOR.—This splendid effort of Col. BARBOUR is worthy the best days of the Commonwealth. When the question of its publication came up in the meeting, very considerable opposition was manifested by several worthy gentlemen, members of the Society. They feared indeed that its sentiments might prove distasteful to some people north of the Potomac. They forgot that it was the utterance not of a man who counseled a separation of the States, but of one who, during the whole war, maintained the position of a *consistent Union man*. While it was a source of the most sincere regret to the friends of the cause so dear to us, that one about whose name clustered so much glory, should stand aloof from his friends in the struggle, still no man questioned his motives. The Barbour was incapable of dishonor. Who then had a better right to utter such sentiments, and whose opinions should carry greater weight?

The eating of humble-pie has never been a wholesome regimen to anybody, and it never will be. We have no cause to resort to that regimen, and we *ought to be despised* if we do. Hungary refused it, and refused it for two hundred years. It was not because the Magyars deserved mercy, that the infamous House of Hapsburg was at last brought to its senses. It was the realization of the truth that a house divided against itself *could not stand*, and that a man with a musket in his hand, and no love of country in his heart, could not be depended upon as an element of defence.

The contrast between the claim urged by the North, in vindication of the war, and its conduct since, proves that no principle was involved; that it was hate, pure and simple, and that they thanked God for the pretext to give this feeling form and energy. If we remember aright, it was the late Chief Justice CHASE, who admitted that it was not slavery he hated so much as the slaveholder. Why? This slaveholder was the main source of his people's wealth, and was a man who suffered wrong to his interests, year after year, with a patience that was sublime. *He was hated because he was the superior man, and governed because he couldn't help it.*

Now, the Union is restored, or it is not. If it is, this hate must cease, and *cease forever*; otherwise the Union is the merest rope of sand, and not worth the wind of a cross-road declaimer, let alone the display arranged to take place at Philadelphia this year. As there is nothing to show that a *substantial reconciliation* is contemplated by the "Centennial," Virginia, of all other States, has no business there. Everything that made her history glorious in the past is ignored by the vulgar despotism at Washington; and she has no cause whatever to congratulate herself that she has ceased to be a colony of England. We trust, therefore, that the Legislature will refuse to appropriate a cent for any such purpose. There is no possible way in which she could stultify herself more.

Some excellent people think that a collection of our products carried there might result in material benefit to the State. We can see no such result, inasmuch as people who have means and leisure enough to enable them to go a long distance to see shows, have no inducement to change their homes, and want none. If we arrange here at Richmond, our capital, an honest collection, showing our resources, with a man in charge of it who knows nothing about rose color, and will go to the trouble and expense of putting in print a faithful account of them, *to be sent directly to the people we want to have here*, it will bring more solid returns in a single year than all the big shows in the world combined. Besides, a hungry man cannot make a satisfactory choice with a thousand tempting dishes before him, if hungry men were not seldom guests at such tables. We are absolutely amazed that so many people have permitted themselves to be blinded by the wary hotel men and shopkeepers of Philadelphia—a city intensely “loyal” because its citizens manage that it shall cost them nothing. Richmond, with her \$16,000,000 of manufactures, pays *more* by half a million to support the General Government than Philadelphia with her \$374,000,000!! *We want works, not words.* Words avail nothing—nay, more, are a mockery, when acts (ballots) persistently keep in power people whose conduct is a disgrace to civilization, and whose exponents exhibit an utter incapacity to govern where a diversity of interests prevail,—yea, to whom the value of office is measured *only* by the amount of money it will insure. Such a travesty of government may, through brute force, compel the adhesion of slaves; it can never command the love of men. The Roman mother could, with peculiar emotion, lay her hand upon her boy’s head, and tell him what a place his country should have in his heart, and what it was to die in its defence. We, in the South, in rearing our children, are yet bereft of this privilege; we may not even refer to this sentiment, so utterly unworthy the love of anybody has the country become in which our lot is cast. In the hope that time will bring a change for the better, we invite people from abroad to share what our State has to offer.

We trust that every man in the State will read Col. Barbour’s address. It will do him good; and make him feel that, while his troubles have been neither few nor light, he still may, with pride and honor, boast himself a Virginian.

[For the Southern Planter and Farmer.]

THE PUBLIC SCHOOL IN ITS RELATIONS TO THE NEGRO.

No. II.

So different anatomically and physiologically are the two races from each other, that we are told on the highest medical authority that the treatment which is demanded for the recovery of a white man in fever and other forms of disease will be fatal to the negro; that the most successful practitioners educated at the North or in Europe, when they first come in contact with the negro and proceed to treat him in sickness on general principles, uniformly fail, and frequently with disastrous results, until by observation and trial they learn that special treatment is demanded by congenital peculiarities, both in organization and functions. We have already seen that the negro, both in his intellectual and moral attributes is conspicuously inferior to the white man, so that there is a perfect correlation between his physical peculiarities and his immaterial nature. Inferi-

ority is stamped plainly and indelibly on the negro alike in his intellectual, moral and physical being.

This line of demarcation between the races is not accidental or the result of outward surroundings; it has been fixed by the finger of God. Since the negro has been known to history, he has always been as we see him now. In our dealings with him, shall we ignore or attempt to obliterate this line of separation? It is greatly to be deplored, says modern philanthropy, that these differences exist. They constitute a great barrier to the success of its pet schemes of equality and fraternity. There have always been men, as there are to day, wiser than God, and ready at a moment's notice to reconstruct the work of the matchless Architect. A distinguished scientist of our day has told us that the eye is a bungling piece of optical mechanism; and that, under his direction, the construction of that organ would have been vastly better. Not long ago, carpenters and critics were fond of attacking the divine cosmogony, because three-fourths of the earth's surface is covered with water, an arrangement which restricts, they complained, our race to a small part of the planet. They, wiser than he who "spoke and it was done, who commanded and it stood fast," would at farthest have covered only one-fourth of the earth with water, an arrangement which, we now perfectly know, would have rendered the land an absolute desert for lack of sufficient evaporating surface. I do not belong to the fanatical crew that dares to assail the Infinite wisdom; that would

"Strike from his hand the balance and the rod,
Rejudge his justice, be the god of God."

As far as I can understand the forms and forces of matter, I see the most wonderful harmonies, manifold adaptations of material things to our wants and happiness, and even in many phenomena, which bring sorrow and suffering, a vindication of the ways of God to man. When and where I cannot understand, I am equally content to wonder and adore; believing, knowing that when the unknown becomes the known, as at last it may, it will equally attest the infinite wisdom and boundless beneficence of the Great Contriver.

It does not, however, appear to me difficult to explain why the negro, not by accident but by the act of God, is made inferior to the Caucasian. It is in perfect harmony with the whole economy of the world. The law of nature, which is always the law of God, is inequality, not equality; diversity, not uniformity; and the happiness of the whole animal kingdom is best subserved by this arrangement. "One star differeth from another star in glory;" no two trees in the forest, no two leaves even, are exactly alike; and every man is different from all other men, that live, or have lived, on the surface of the earth. Civilization requires an infinite variety of work, which in turn requires for its performance infinite gradations of intellect. The man who, accepting his destiny as indicated by his humble capacity, performs the lowest kind of menial labor, does work just as necessary in the economy of civilization as the profound

astronomer who measures and weighs suspended worlds, and marks out their circling paths. The truth is that the number of those required to do the loftiest work of which the human intellect is capable, is very small; while larger and still larger numbers are required for lower and still lower work, so that those occupations are most thronged which least require intellectual strength and activity. It always has been so; and, dream and speculate as we will, it always will be so. When Christ said: "The poor ye have always with you," he stated a general truth, applicable not only to the age and country of which he spoke, but to all ages and to all countries. Of necessity it must be so, it is right that it should be so. Bootblacks and scavengers, cooks and chamber maids, farm hands and operatives in manufacturing establishments must continue until chaos comes again. These and kindred occupations, constituting the very foundation of civilized society, require for the utmost efficiency of the work, little or no scholastic training on the part of the mere laborers. Nor can it be said that such work would be better done if the laborers were educated. So far from this being so, the difficulty of having it done at all would be greatly increased; and when done, it would be done by no means so well. For several reasons, this must be so. The fact that a laborer is educated, or thinks he is educated, beyond his calling, unfits him for that calling. If a man is engaged in work below his education, he feels degraded by it, and that sense of degradation compels him to do inferior work. No laborer can do good work unless he is proud of his work. I know of no spectacle more pitiable than that of a man compelled by necessity to engage in menial labor for a support, whose education, either in fact or in his conception, fits him for a higher plane of life. He is far less happy, and does less work, and that less efficiently, than the simple laborer by his side, whose thoughts never rise higher than his calling, and whose guileless heart is made happy by a word of praise from his employer.

Again, the more simple a piece of machinery is, the more manageable it is, and the better it does the work for which it was designed. When we complicate it so as to render it capable of doing several things, it will not do any one of these things so well as the simple machine constructed solely with reference to that thing. A mower and reaper combined is less efficient as a mower than a simple mower; is less efficient as a reaper than a simple reaper. And so that intelligence and culture, and only that, which is required for one's calling, best fits him for the duties of that calling. The bootblack is not a better bootblack, but a worse one, the ditcher is not a better ditcher, but a worse one, if he can also calculate a solar eclipse or read with a critic's ken the choral odes of the Greek dramatists.

A higher than human authority hath taught us that we cannot serve two masters. Faithfully and well to discharge the duties of one sphere of life positively disqualifies us for those of a lower or of a higher sphere. Contentment in our allotted place—and a place

is allotted to us all—is at once the plain dictate of reason and the positive injunction of inspiration. A laborer will never do full and efficient work unless he finds not only his support but his happiness in his labor, content to leave to those, more gifted than he, the problems of science and the perplexities of finance. And such a course is always the laborer's choice, unless the vile spirit of unrest and discontent has been stirred within him by the constant teachings of a blasphemous philosophy.

The practice of men in the employment of menial labor is in entire harmony with our doctrine, and at once attests and demonstrates its truth. The farmer always prefers as laborers in his field those accustomed and competent only to such work; nor will he employ, except from necessity or as a matter of charity, applicants whose thoughts have taken a wider and a loftier range. To succeed in work that is below one's capacity and attainments is just as impossible as to succeed in work that is above one's capacity and attainments; and this the practical man, who, in all matters relating to his business and interests, has more sense than all the philanthropists and reformers in the world put together, well knows, and acts accordingly. Not long ago, I had a conversation with a prominent gentleman, a farmer and preacher, who combatted this view; and yet in the conversation it cropped out that he had just refused employment, though greatly needing labor on his farm, to two strong young men, fresh from the Normal School at Hampton, on the ground, as acknowledged, that persons engaged as they had been would not suit his work, nor it them. What this man did, everybody else, under similar circumstances, does. The simple fact that men uniformly so act, proves that such action is based on the strongest and most conclusive reasons. The cook, that must read the daily paper, will spoil your beef and your bread; the sable pickaninny, that has to do his grammar and arithmetic, will leave your boots unblackened and your horse uncurried.

Some—and a great many too—are and must be mudsills. Some are and must be “hewers of wood and drawers of water.” Such is the decree, and the language quoted is that of the Almighty. This doctrine, so unpalatable to our fanatical optimists, has been most fiercely attacked; but these assaults, hot with wrath, have made no impression on the thick bosses of Jehovah's buckler.

Society, left to the operation of natural causes, will take its proper order of stratification. Each member, according to his inherent energy and capacity, will find his proper place in just gradation. To protect the individual in his rights, not to form society, is the function of government. As individuals have or lack capacity, they will rise or sink; and they will rise who ought to rise, and they will sink who ought to sink. To check, or attempt to check one from sinking who ought to sink, is as great a cruelty to him and as disastrous to society as to prevent or attempt to prevent one from rising who ought to rise. That father would be cruel in the extreme and inflict a great damage on the community who

should hold, or attempt to hold, in lowly life, a son competent to the grandest achievements; but not more cruel nor more injurious to society than that other father who places his son in a position above his capacity, and, say, holds him there, a position which requires of him duties that he cannot discharge, and devolves upon him responsibilities, that he cannot meet, rendering worthless, and, from a sense of worthlessness, wretched, one who, in his proper place, would have been both useful and happy. That every man should promptly find his proper level is demanded alike by the happiness of the individual and the general interests of the community. An attempt on the part of the State to place all on a common level, is beyond the range of its just powers, and is as silly as it is vain. The great Father of Waters, as he moves to the sea, bears on his turbid bosom many thousand tons of solid matter, which is accurately assorted and distributed along his course and at his mouths by the operation of physical laws too powerful for human agency to contravene; and so the laws of God's moral government, not less constant nor less powerful than those that control the physical universe, determine the stratification of human society. We may endeavor by legislation, as weak as it is wicked, to prevent this stratification or to make it homogeneous and uniform; but as sure as God is stronger than man, the attempt will end in failure, inflicting, however, untold misery on individuals and crippling, it may be, the industries of the globe.

We have drifted far from the simplicity of our fathers. They held that government is instituted for the protection of individual rights; now the individual is the prey of government, which crushes him with tyrannous exactions, while the highest aim of statesmanship consists in the discovery of new subjects of taxation. And now, when the President of the Republic, (can we call it a Republic?) "whereof," he sapiently tells us, "one man is as good as another," recommends in his last annual message to Congress, compulsory education by the Federal Government; and, with a logic, of which I will only say that it is worthy of its source, proposes to tax the church to support the school, backed in this latter matter, I regret to add, by the feeble support of the Governor of Virginia, it is high time that thoughtful men should bestir themselves, demand a new reckoning, and make the supreme effort, lest the ship of state drift into worse than Prussian absolutism. The fact that the President makes such a proposition, and that, too, in the most solemn and formal way, ought to arouse us from our lethargy and make us open our eyes to the alarming drift and tendency of the times. It is nothing less than that the Federal Government should stretch out its Briarean arms from the St. Lawrence to the Gulf, and from the Atlantic to the Pacific, and lay its cold and heavy hand upon all the children of "the nation," compelling them to schools supported by universal taxation, prescribing what they shall learn, and what they shall not learn, forbidding the reading of the Bible and the bare mention of the name of Christ, forming their minds and their morals, taking charge of their health and their habits, constituting itself a sort

of wet nurse to the little urchins, and leaving to parents, upon whom alone is devolved, as well by instinct and affection as by the repeated and most solemn injunctions of Inspiration, the education of their children; little more than the function of reproduction. Under such a system, the path to despotism is short and plain; and we may expect to see, as we most abundantly do see, wherever the scheme has been long intrenched and so has had time to fructify, an utter relaxation of parental and filial obligation and manifold forms of atheism and irreligion. But the Federal Government has as much right to intervene in this matter as the State Government; it belongs to neither. The education of children belongs to parents and to them only; nor can they delegate or surrender it to the civil authority, State or Federal, without guilt.

But, it is maintained, that a necessity is laid upon Virginia to support the public school because of the presence of negroes as citizens in our midst, whose equality is asserted by the law and maintained by the power of the Federal Government.

Let us look into this. When an inferior and a superior race come into contact with each other, one of these three things will take place. 1st. The inferior race will disappear; or 2d. The races will amalgamate; or 3d. The inferior race must submit, under forms more or less despotic, to the domination of the superior race.

1. When Europeans landed on this continent their instincts demanded that so vast and fertile a domain, pregnant with such mighty and brilliant possibilities, should not be left to the proprietorship of wild savages, incompetent to cultivate the soil or explore the mine. They were but cumberers of the ground, and must give way to those who could utilize the gifts of nature to the general benefit of mankind. On the other hand, the proud spirit of the haughty Indian, after many a bloody protest, it is true, sullenly recognized the inevitable logic of this demand, and so he has constantly retired before the advancing wave of civilization. Taught by instinct, he felt that he was unable to compete, for the means of living, with a race whose superior sagacity moulded the forms and bent the forces of nature to their will. Thus, the mighty tribes that once lorded it over this continent, following the course of the sun, and vanishing, as they retired, like April snows, are represented now in our western wilds by only a few degraded and broken spirited remnants, the miserable victims of the cruel charity of the Government—for governmental charity is always cruel, and corrupting too—famishing on fibrous beef, and poisoned with putrid pork. As the tide of life moves further westward, the Indian, as heretofore, must abandon his reservation, and soon his only place will be in history. This is one method of solution, which we have witnessed with our own eyes, and, so sure as the laws of nature are constant, we shall witness it again, unless we change the hideous policy to which we are committed.

2. Under favoring circumstances and conditions, the races will amalgamate. Nature implants in the superior race antagonisms and antipathies to the inferior, which, except under abnormal circumstances, effec-

tually protects the purity of its strain. The greater the disparity, the stronger these antipathies, and therefore the less the liability to amalgamation. But how great soever the disparity, amalgamation is inevitable under certain conditions, as where the inferior race vastly outnumbered the superior, or when the two races are kept together by external force. The amalgamation of the blacks and whites—a crime against blood and lineage, against man and God, against which I raise my hands in horror and disgust, and exonerate my conscience, if I can do no more, by a solemn and indignant protest—is encouraged and invited by the law, which recognizes the political equality of the negro, and ties the races together in the bonds of political partnership.

If the negro, as the law assumes, is equal to the great functions of citizenship, is a copartner with us in a common government, to discharge the same duties, meet the same responsibilities, and share the same destiny, then the races ought to assimilate as thoroughly as possible, and every bar to their perfect blending ought to be removed. Mixed schools, which we barely escaped—if, indeed, we have escaped—only because race instinct, though weakened and blinded by the hot passions born of strife and blood, was stronger than the logic of the law, in which the same training and instructions should be given and antagonisms worn off by constant contact and association, is the necessary, the logical demand of the doctrine of equality. Nor let us deceive ourselves by saying that political equality is one thing and social equality another. An adjective will not save us. Equality is equality. If the negro is fit, as the law in question declares he is, to make laws for the control of our conduct and property; to give orders as a colonel or general, which we must implicitly obey; to sit in senatorial robes; to wear the spotless ermine; to occupy the chair of Washington, he is certainly fit to eat with us at our tables, to sleep in our beds, to be invited into our parlors, and to do all acts and things which a white man may do.

The intent and animus of the law, the pressure of the whole machinery of the Federal Government, and of the State Government too, in so far as it recognizes the equality of the negro in its insane attempts to qualify him by education for the rights and duties of citizenship, tend to a common point, viz., to wear off race antagonisms by contact and association, to pave the way consequently to assimilation and amalgamation, and thus degrade into mulattoes and molungeons, the noblest type of the noblest race that ever floated on the tide of time. No thanks to the law if this result does not promptly and fully ensue. It is as criminal as if miscegenation were the order of the day; for it plies all its logic and displays all its seductions to effect that object, from which we are saved, in so far as we are saved, only by those antagonisms and antipathies of race, stronger than human legislation, implanted in us by our Maker to protect purity of blood and accomplish the "survival of the fittest."

If it be said in reply that this very principle of race antagonism is an effectual bar to hybridization, I answer :

1. That if such be the tendency of the law, it must produce its effect; that it is as impossible to annihilate a force in morals as it is to annihilate a force in physics; that the law makes its fiercest assaults upon the very principle which is relied upon to combat or modify its tendencies, and that this principle is liable to be so weakened and emasculated by the varied appliances operating against it, as to be unable at last to antagonize the baleful tendencies of the law. The law, however weak in comparison with the antagonizing principle, must produce its effects, which will become more manifest and more disastrous as the law becomes stronger and the opposing principle weaker. And this is exactly the tendency of things. As we submit to this legislation, and applaud and adopt it, its power over us becomes greater and our repugnance less to it and to its results, so that a time may come when, both from the increasing strength of the law and the growing weakness of human virtue, our race may be hopelessly ruined.

2. Beware how you subject human nature to temptation. For us, as weak as we are sinful, the only safe philosophy is found in the prayer of our Saviour, "Lead us not into temptation." How dare we support and sanction a law which daily displays before society and our children a constant temptation to corruption of blood? It is a crime against decency and morals, against race and blood, against God and nature.

If we are not utterly debauched by the temptation, the law is not the less criminal; for we are saved, so far as we are saved, by a principle outside of the law, antagonistic to it, the eradication of which is the supreme object of the law, and of those who conceived and framed it.

But we have no option, we are told, except submission. I reply that we can submit without guilt to any thing that we cannot prevent; but that when we adopt, and applaud and defend this law, and, with superserviceable weakness, extend its application, we are as guilty, we are more guilty than its original framers. And this thing, and nothing else, we are doing, when we go to the exhausted Exchequer of the Commonwealth, and take from it money—money that does not belong to the State, but to its creditors—and apply it to the support of the public school that the asserted doctrine of negro equality may be made good. In this we cannot offer the plea of compulsion; no federal law requires it; we do it of our own volition; and in doing it, we grant that the negro is competent to political sovereignty and endeavor to prepare him for it; and thus we commit ourselves to the dogma of negro equality and become responsible for all its hideous consequences. This law, born of blood, is destined to die, as the passions engendered by war subside, unless we adopt it and approve it, and so infuse new life into it, and proceed with supreme guilt and folly to incorporate it into our State legislation. Shall we do it? God forbid.

3. A third course has been indicated, the discussion of which is reserved for another article.

CIVIS.

[For the Southern Planter and Farmer.]

ON THE USE OF PLASTER OR SULPHATE OF LIME.

In my article on Commercial Fertilizers, published in your October No., (the views in which I am pleased to see endorsed by "Henrico" in your last,) I promised to write you on the subject of Plaster as a Fertilizer. I have been prevented doing so before, by constant employment. I will begin by saying it is a subject that I do not believe any agriculturist fully understands. I confess that I do not, and can only give you my experience and crude views on the subject for what they are worth. I have been using plaster for thirty years, and of late years as much as 100 tons a year; sometimes with no perceptible benefit, generally with good results, and frequently remarkable, equal to that of Peruvian guano—depending, in my opinion, (now that I have more experience,) on the *quality of the article and the fineness of its grinding*. Using plaster so largely, five years ago I bought a mill near me, and have been grinding from 2,000 to 3,000 tons a year for sale, and find that all the plaster that is imported from Nova Scotia and all that is called the Blue Windsor, is not of the same quality. The best, of course, is pure sulphate of lime, but much of it has a large proportion of silica in it, and much baryta, and is, consequently, less valuable as a fertilizer. Of the many quarries now worked in Nova Scotia, there are only three, of my knowledge, that are valuable, and one of them of much better quality than the other two, and there are some the plaster from which I would not go to the labor of sowing if it were delivered to me free of charge. Hence I believe are the various opinions as to the value or worthlessness of plaster by farmers, and it is impossible to tell, after it is ground, of what quality the rock was. Then plaster is generally ground too coarse; it should be as fine as flour, if possible, so that it will more readily *dissolve*. I will say presently what I mean by *dissolving*.

Now, as to my experiments in the use of it. Before the war the benefit was more perceptible than since, I believe because then the farmer selected his choice of rock; it was ground in the country mills and ground fine. All the mills in this section being burnt during the war most of the plaster is ground now by steam mills and ground entirely too coarse and of every sort of plaster-rock they can buy, thinking it all equally good. I have used it on all the grasses, and on wheat, corn and oats, and find it beneficial to all when of good quality and properly applied. I have seen the most marked results on clover, next on sod land. On wheat it should be applied as soon as it comes up in the fall or early winter; if applied in spring it is apt to keep it too green and make it more liable to rust; on sod land, any time in the winter or early spring; on clover, early in the spring, as soon as it begins to cover the ground; on corn, after the last plowing, just when the corn is laid aside. I think plaster should always be applied on the surface, never under the ground, unless mixed with some fertilizer containing ammonia,

then it may be beneficial to prevent the too rapid escape of the ammonia, as in drilling Peruvian guano with wheat. I believe plaster is beneficial to all soils, but more particularly on land where there is much vegetable matter decomposing. I had been told it was worthless in our Tidewater section. Five years ago I sent ten tons to my farm in Essex Co., Va., on the Rappahannock river, (plaster manufactured in Baltimore,) it had no perceptible effect, nor was I surprised, when I saw a remnant of it that was left, it was as coarse as sand. Last year I sent thirty tons to the same farm—ground fine at my mill—of rock that I knew to be the best, and the effect is very marked, almost as distinct as would have been an application of 100 pounds of Peruvian guano. I have seen a part of a clover field unsown and persons passing would ask why I did not sow the balance of the field in clover, when it was all well set alike, but a part had no plaster on it. I have seen stripes in corn as far as you could see the field, where the plaster was sown being a foot or two taller and several shades darker green than where it missed. I have also frequently seen no effect whatever from its use. Formerly I thought its action owing to peculiar seasons; I still think the season has a great deal to do with it, but more the *quality* of the plaster.

Now, as to *how* plaster acts, no chemist or agriculturist agrees. I have a mere smattering of chemistry, but will have to use the little I have to help out my experience and observation, and out of the combination give you my crude ideas. The best plaster is the purest sulphate of lime, that is, sulphuric acid and lime. Pure sulphate of *lime*, (not combined with silica and baryta,) when finely ground and distributed over the land may act thus: the sulphuric acid, having a greater affinity for ammonia than for lime, will let go the lime and unite with the ammonia contained in rain, more particularly in snow, which is said to contain more ammonia than rain, and especially with the ammoniacal and nitrogenous vapors arising from decomposing vegetable matter—of which there is a great deal the first warm weather in spring—forming *sulphate of ammonia*, which, being soluble in water, is taken up by the plant as food, or stimulant if you please, but if a stimulant, is so by utilizing the escaping ammonia from vegetable matter, rain and snow, which would otherwise be lost; the lime left free, and though in small quantities, does its part in producing chemical changes in the soil and vegetable matter. This is what I believe is the "*dissolving*" of plaster. If correct you see the necessity of fine grinding in plaster, and that it should be pure sulphate of lime uncombined with anything else, and the greater redundancy of sulphuric acid the better. If this theory be true, then the *best plaster* will act, and I believe does act, on all soils, especially where there is much decomposition of vegetable matter.

Mr. Editor, this may be all theory, but it is certain that all farmers, experienced in the use of plaster, *know* that there are different kinds of it; that the kind which gives out the strongest sulphuric acid smell in grinding, has the best effect on vegetation; that some

plaster, in some seasons at least, has no perceptible effect; that sometimes the effect is greater than at others, and sometimes equal to that of Peruvian guano; that if it is thrown over or mixed in a fermenting dung-pile, it at once stops the strong pungent smell, which is the escape of ammonia, and thus preserves the manure. These are farmers' facts, and not theory, and chemists will tell you there is great difference in the analysis of different kinds of plaster-rock, all from Nova Scotia. Then I claim that the best plaster, properly ground, is the best fertilizer we can use for its cost. And, as I said in the *Piedmont and Tidewater Farmer*, bone lime, and plaster are the only fertilizers (always excepting *our own home manures*, which are best of all) that will pay the farmer in the "long run." Having already made this article too long, I will only say in addition that I usually apply from 100 to 150 pounds plaster to the acre.

Fauquier Co., Va.

ROBT. BEVERLEY.

NOTE BY THE EDITOR.—Col. BEVERLY's opinion, as to the reasons underlying the action of plaster, is exactly corroborated by the learned LIEBIG, and he, the father of agricultural chemistry, was certainly worthy to express an opinion in this line. Necessity is the great creator, and now that it presses our people at so many points, we are not surprised at the inquiry so apparent everywhere throughout the State. As we have before observed, there is no sign of the times fuller of solid hope than this desire of the farming community to get at *the reasons of their business*; for they *must* produce the best returns with the least expenditure of money. Col. Beverly is so thoroughly posted in the agriculture and capabilities generally of his region that we trust he will not abate his efforts, so auspiciously begun, but, from time to time, let his brother farmers hear the results of his experience, observation and study.

LORD KINCAID'S EXPERIMENT WITH STABLE MANURE KEPT UNDER COVER AND EXPOSED.

Lord Kincaid, a Scotch land owner and farmer, had the good sense to learn by direct experiment the relative value of stable manure, kept some months under shelter and protected from all rain or snow, and similar manure exposed to the weather in a way once very common in Great Britain, and still not very uncommon in the United States. Four acres of good soil were measured, two of them were manured with ordinary barn-yard manure, and two with an equal quantity of manure from a covered shed. The whole was planted with potatoes. The product of each acre was as follows:

Potatoes treated with barn-yard manure:

One acre produced 272 bushels.

Another acre produced 272 bushels.

Potatoes manured from the covered sheds:

One acre produced 442 bushels.

Another acre produced 471 bushels.

The next year the land was sown with wheat, when the crop was as follows:

Wheat on land treated with barn-yard manure:

One acre produced forty-one bushels, eighteen pounds (of sixty-one pounds per bushel).

One acre produced forty-two bushels, thirty-eight pounds (of sixty-one pounds per bushel).

Wheat on land manured from covered sheds:

One acre produced fifty-five bushels, five pounds (of sixty-one pounds per bushel).

One acre produced fifty-eight bushels, forty-seven pounds (of sixty-one pounds per bushel).

The straw also yielded one-third more upon the land fertilized with the manure from the covered stalls, than upon that to which the ordinary manure was applied.

The *Nashville American* concludes its remarks upon the above by saying, that the salts saved, my merely sheltering manure, gave Lord Kincaid about one hundred bushels of potatoes more to the acre than he would have raised without the shelter. Even in the next crop of wheat the gain was nearly fourteen bushels. The best plant food is often volatile, and always soluble in water. It is easily lost by a stupid man, who takes no pains to raise full crops of grain, vegetables, cotton or fruit. To make a poor article of manure, and waste two-thirds of that, is calculated to bring manure making on the farm into disrepute. Learn to produce manure worth more per one hundred pounds than good hay. Concentrate fertility as you would bring the rays of the sun to a focus in a sun-glass.

NOTE BY THE EDITOR.—Not a few of our folks in the South not only expose their stable manure to the action of the elements, *but actually mix lime with it!* These two operations render it almost absolutely valueless. Stable manure has been examined thoroughly by men not less famous than LAWES, GILBERT, VOELCKER, HUXTABLE, WAX, VILLE and GOESSMANN, and none of them succeeded in getting as much as fifty pounds to the ton of what are universally accepted as indispensable elements of plant food, namely: ammonia, phosphoric acid, and potash. Now, if it is allowed to decompose at pleasure, and be subjected to washing rains, these valuable elements will very probably all wash away; and when lime is added, if any ammonia has been left, it will be at once expelled. We have urged, again and again, that *no farmer can possibly know too much about his business*; and yet we see that ignorance of the simplest elements of science involves to him, every year, the loss of hundreds of dollars in deficient crops from material that ought to give him a bountiful return.

[For the Southern Planter and Farmer.]

ABOUT FENCES.

I have been greatly annoyed several times to *fall upon* some plan by which I could always keep the first panel of a staked fence on each side of a gate or bars in as good repair as the other panels of the fence, but never succeeded in doing so until a few days ago. It is this: instead of having a cap and single pair of stakes, as we usually find at the end of rails next to the gate, &c., have two pairs of stakes and cap to each pair, placed four to six inches from each other, then rocks or blocks placed between the ends of the rails, and also between these two stakes, will remain there a long time, and of course cause that part of the panel to be kept as high as the other parts of the fence.

STUDLEY.

TENNESSEE'S EXAMPLE TO VIRGINIA.

The State of Tennessee has given to the world the "*Introduction to the Resources of Tennessee*," a volume of 1200 pages, accompanied by geological, crop and transportation maps, and giving a description of what every county in the State has to exhibit in the way of lands, timber, mines—indeed, everything that an immigrant would like to know. It is the work of its Bureau of Agriculture, Statistics and Mines, of which Dr. J. B. KILLEBREW is chief. The work is an honor to the State, and has gone forth to foreign lands to show them what it has to offer to men of energy and means who wish a field ample enough to give their talents the fullest scope. Dr. KILLEBREW, hearing that our State contemplated the arrangement of a similar bureau, addressed a letter to Mr. OTT, the Secretary of the Southern Fertilizing Company, on the subject. Mr. OTT has furnished us with the following extracts, which we are satisfied will prove interesting to every reader of the *Planter and Farmer*:

"The time has come when the South can no longer be dependent upon the North without complete prostration. The habit of selling the very fatness of our soil, in the shape of raw material, year by year, and buying almost everything we use, from the hat on our heads to the shoes on our feet—everything, from a cradle to a coffin, cannot be longer continued without making us slaves to the North almost as absolutely as the negroes were to us. We are indeed giving the labor of three men for one, when we exchange the raw product for the finished article. Our prosperity must in the future depend upon a diversification of our industries. We need more industrial talent, that can bridle the foaming rivulet and make it obedient to the will of man; that can direct the operations of the forge, the furnace, and the rolling mill; that can subordinate all the forces of nature to man's use. We are vainly striving to make muscle compete with machinery, directed by intelligence. The *per capita* productive capacity of each man, woman and child in Massachusetts is \$400, excluding the gains of commerce; while in Tennessee it is \$96, and in Virginia \$74. In other words, each person in Massachusetts may spend as much as each person in Tennessee makes, and have \$304 left, or as much as a citizen of Virginia, and have \$326 to deposit in a savings bank. If the people of Virginia had the same training and the same natural forces at work, with all the diversity of manufactures, as the people of Massachusetts, they could have an annual income greater by nearly \$400,000,000! a sum, I suppose, nearly double the value of all your taxable property. There can be but one remedy: we must have more skilled labor, and must cease to "sell a hide for a penny and buy back the tail for a shilling." We cannot be prosperous in the South as long as we pursue the present ruinous policy of giving all the benefits of the high protective tariff to the North. Virginia, Tennessee and Kentucky pay at least \$30,000,000 of the internal revenue of the country—fully one-tenth—while they represent only one-twentieth of the wealth of the United States.

"I am rejoiced that you in Virginia are about to take one of the most important steps towards relieving yourselves of this state of

vassalage. Gather up the facts pertaining to your resources; publish them to the world; show your advantages in climate, in variety of productions, in the cheapness of your lands, in the value, extent and variety of your mineral wealth and timber, in the excellence of your great harbor, &c., &c., and you cannot fail to have an accession to your population which will turn all these now mere possibilities into tangible wealth, and make old Virginia, my fatherland, whose very name I venerate, bright, as of yore, with intellectual and material splendor."

A BROAD VIEW OF THINGS AT HOME.

An esteemed correspondent in Montgomery county, Va., in a private letter to us, says:

"There is no reason why we should not have as good agricultural writing in Virginia as in any other portion of the country; for, as a class, our farmers are better educated than the majority of farmers in the other States. But, woe to us, ours too generally devote their best talents to local political matters, to the neglect of those vital interests that politics were intended merely to conserve.

"If we cannot, as we ought to be, a manufacturing State and people, we should, by all means, be a thriving agricultural people, as we have all the advantages of climate and convenience to all the principal markets of the country. We must show ourselves to be a *producing people* before we can hope to have capitalists come among us to engage in manufacturing. *The profits of manufacturing at this day frequently turns upon the facilities existing for the supply of necessities without cost of transportation.*

"During my visits to Richmond in the last few years I have met several farmers from the North and West, who expressed to me their astonishment at seeing the vast amount of land lying idle around our capital, and between it and Petersburg. Indeed, it should be a matter of surprise to any one to see land within gunshot of Capitol Square thrown out as commons, and the owners complaining of hard times. I do hope there is a better day coming for us, and I know of nothing that will aid its advance more than the efforts the *Planter and Farmer* is making to disseminate among the people practical agricultural information and words of good cheer."

[For the Southern Planter and Farmer.]

CORN-SHUCKING.

Why is it that farmers will continue to pay the negro ten cents per barrel to shuck their corn when there is little or no expense attending that operation? Let the corn be "slip-shucked" as it is gathered and thrown into the crib. This can be done with safety three weeks earlier than when it is shucked. The rats do not injure it anything like so much, and there is not that vile scent upon it caused by them. It is the best plan upon earth to keep weevil from it, and in fact there are many reasons why it should be so housed.

When you wish to prepare the crop for market or the mill, pass it through the corn sheller and through your wheat fan, *with the chaffer only in it*, and there you have your corn *shelled, shucked and cured*, and your shucks hackled and ready for your stock, than which nothing is better for them, always provided you have them slightly impregnated with water, into which you have cast a *modicum* of salt. What pleasure to see them eat it, all the time remembering that you have in your pocket \$10 save upon every 100 barrels of corn you may have made, which would have gone into the pocket of some low vender of lightning, who always manages to clean out every negro to whom the farmer pays money.

Spotsylvania Co.

GRANGER.

[For the Southern Planter and Farmer.]

INJURY TO TOBACCO PLANT BEDS BY FLIES.

A REMEDY.

[The following article appeared in this journal in 1854, and at the request of a friend we reproduce it. We have arranged to have a series of articles, by the best tobacco growers in Virginia, on the cultivation of tobacco from the plant bed to its delivery to market. ED.]

“The ravages of the fly on the tobacco plant beds of Eastern Virginia have so much increased of late years as to call for a more certain preventive or remedy than any heretofore suggested. A first, and sometimes a second series of plants is devoured by the insects, and before a third can attain a growth sufficient for transplantation, the early seasons have passed. The loss occasioned by the delay alone in planting must have been immense; and during the present year many growers of tobacco wholly failed in occupying a part of their hills made for that purpose.

“During a recent visit to the county of Amherst, I met with Mr. James W. Phillips, an intelligent citizen and planter of that county, with whom I conversed at large on the best modes of rearing and managing tobacco. From him I learned that he was in possession of a remedy against the fly, which he had tried with unvarying success for thirteen years past, with the exception of one year, when no flies appeared. He had not divulged it before, but is willing that it should be made public now; and as it is both simple and cheap, I send for publication in the *Planter* a copy of what was written down from his dictation.

“As soon as the cattle are taken in from grazing and put up for winter feeding, as we may be certain that their manure will be free from grass seeds, a quantity of this is collected and stored in several barrels. Old flour or lime barrels will answer the purpose. Over each layer of eight or ten inches thickness, pour water until it is moistened through and then sprinkle a handful or two of slaked lime. About

four or five handfuls generally suffice for a barrel. These are either to be kept under shelter or covered during wet weather. As soon as the fly makes its appearance—which is generally from the last week in March to the middle of April—sprinkle the mixture, which will be now thoroughly pulverized, over the beds so as nearly to cover the plants. The flies will cease to trouble them and the manure will stimulate their growth as well or better than any other he has ever tried.’

“Mr. P. covers his beds with brush, as is the general custom, and rather thicker than usual; but never removes it entirely until shortly before the plants are drawn. He thinks it better to have *two* layers of brush, one across the other, as in case the plants are too much shaded, the second may be removed without disturbing the first, and thus injuring the plants.

“The remedy here proposed may not be as new to all your readers as it was to myself, but I doubt if it be generally known, and Mr. Phillips assures me that, as thus compounded, it is original with him. I have heard of liquid manure, or a weak solution of guano, or the brine of fish being poured over the beds—of lime or plaster of Paris, either singly or successively, sprinkled over the plants—but not with uniform results. It has been said that if brush fires be kindled at night to the leeward of the beds the flies will be attracted by the flames. Recent observers of the habits of these insects also tell us that they rarely or never rise more than three feet from the ground, and that beds enclosed by a tight plank fence of that height will keep them out. Of the efficacy of either of these modes I know nothing; but the first, I suppose, would be but temporary, and the other both troublesome and expensive. Mr. P’s continued success was attested by several of his neighbors, and his preparation may be considered worthy of trial by many others during the coming season. Should it prove equally efficacious under a variety of circumstances, he will have entitled himself to the thanks of our planters generally, and perhaps to some more solid testimonial of their obligations.

“Nelson, Dec. 7, 1853.

“N. F. CABELL.”

[For the Southern Planter and Farmer.]

DITCHING.

In ditching I should find no use for a “mud scraper,” but where the clay is too stiff to use the spade, there is economy in breaking it up with the coulter, and some advantage in removing it with the scraper in common use on roads.

Since I have occasion to recur to the subject of ditching, I may be pardoned a few remarks on the principle, novel to me, expressed by your correspondent, “Southside,” in, as I remember, these words: “It is a well-known fact to all practical farmers, that a straight ditch will fill up sooner than a crooked one.”

Now, if there is anything in the world my reason clearly teaches me, and my experience as a "practical farmer" confirms, it is that a straight ditch, other things being equal, will and *must* keep open longer than a crooked one. That a ditch, cut straight where the lay of the land demands a crooked one, will fill up, is readily granted; but here we have another element introduced; it is no longer a contest between straight and crooked.

Having mistaken mere coincidence for cause and effect (*post hoc* for *propter hoc*, if you'll excuse the Latin), "Southside" has to invent a queer philosophy in explanation of his assumed phenomenon. It amounts to this: A ditch may fill up because it has too much fall. The current will be strong enough to bear with it large quantities of sand, which becomes deposited in bars wherever the current is checked. But there is a medium grade, sufficient to move mud indeed, but not sand, and the mud will pass off and form no bars. This does not square with my experience. I have never seen a stream, not even a canal for navigation, with so little fall that it had not strength to move sand when swollen. And both reason and observation teach me that every current of water, whether impetuous enough to move stones, or so sluggish as to move only silt, when it is checked, deposits its drifts, be it what it may. People ditch streams, in great part, to make them straight, and call it "straightening." But other considerations induce them to put up with an approximation to straightness. The location must also approximate the lowest land, for the lowest land defines the course of the freshets, and it is the freshets breaking out of the channel or rushing across it at low places that cause the deposition of sand and other debris, by checking the current along the ditch. It is not often a straight ditch can be cut without being exposed to these cross currents. Then it is apt to be filled up. But if it has plenty of fall, so soon as the current is again confined within the banks the new-formed bar is swept out, and when the stream subsides to its usual tide no obstacle remains. I have often seen this process going on. But when the fall is barely sufficient to carry the water, the course of the ordinary and of the flood-tide must strictly coincide, for any washing across the stream would fill it up irretrievably. If I am wrong in these notions, please set me right; but if right, my only object is to guard against that embarrassment to correct practice, even in plain cases, which is apt to result from the adoption of false principles. In the main, I endorse the views and applaud the object of your correspondent. T. P. L.

[For the Southern Planter and Farmer.]

GRAPES AND WINE,

BY LOUIS OTT, OF NELSON COUNTY.

No. II.

VIRGINIA AS A GRAPE AND WINE COUNTRY.

Grapes are raised either for the purpose of selling them as a table fruit, or for manufacturing them into wine and brandy.

The selling of grapes as a table fruit is a paying business only in localities which are situated near the cities, or on the lines of railroads leading to the cities. But even in these localities only early varieties are profitable, as the price of grapes is falling very low when peaches are coming into the market. Grapes being a perishable article they must be sold as soon as they reach the market, without regard to the condition of the market. I have seen ship loads of grapes thrown overboard into the Hudson river at New York, which were unsalable on account of the glutted market.

The most natural and safest way of converting a grape crop into money is to manufacture it into wine and brandy, but this business can never, for several reasons, be carried on in connection with the sale of grapes as a table fruit. A first-class wine grape is rarely eligible for the table, and those grapes which are excellent in dessert make generally very indifferent wine. Only early grapes pay as fruit, while they never make good wine, like early apples never make good cider, early table fruit being always deficient in some respects. The season in which early grapes ripen is too warm for the manufacture of wine, in consequence of which the fermentation of the must is too rapid and violent, which is injurious to the quality of wine. It is furthermore not to be expected that a good wine can be manufactured out of a crop of grapes, the better part of which was picked out for selling as a table fruit. The only way of combining the selling of grapes and making wine is to have a separate grape-lot of early varieties for the first purpose, and leave the vineyard untouched for making wine.

The medicinal properties of the grape, and particularly the fact that grapes are the best remedy against dyspepsia, a disease which in no other country is found more frequently than in the United States, are highly appreciated in Europe. Thousands of visitors, and among them a great many Americans, are to be found every year in the famous establishments which are carried on for the grape cure at Meran (South Tyrol), Nice (Piedmont), Duerkheim (Rhenish Bavaria), and other places. This offers another chance to make the cultivation of grapes very profitable in localities which are favored by nature with the requirements of a summer resort. I call the attention of those gentlemen from Richmond who recently bought the Mountain Top House, near Afton, to that matter; this delightful place, on which a considerable vineyard is already in operation, being pre-eminently suited for that purpose, and declare myself willing to give them any further information about it, if they call on me to do so.

THE FRENCH WINE CROP IN 1875.

The *Journal des Debats* says that the summer solstice was marked by wet, showery weather, which was followed by continuous sunshine, presenting, on the whole, a remarkably good season for the maturity of the fruit and the excellence of the wine product. The

noted wines of Bordelais and Burgundy promise their usual standard. In Central France, Lower Burgundy, and Champagne there has rarely been in the past a promise of larger yield than during the present year. Vine-growers in this region confess themselves perfectly satisfied. In the South the damage from inundation, though serious, was not so great as was at first stated. The prolific yields of the past few years have placed the vine-growers in comparatively easy circumstances. On the whole, the French wine product will be abundant, and at least of medium quality; it will probably reach 60,000,000 hectoliters, or 1,585,060,000 gallons, worth, at 20 francs per hectoliter, \$240,000,000. France exports wines to the amount of 250,000,000 francs per annum, but this represents less than one-tenth of the home consumption in a productive year. About one-tenth of the total product is used for the manufacture of brandy, and scarcely 1 per cent. for vinegar. Yet this mighty productive interest stands aghast at the ravages of the *Phylloxera*, which threatens to undermine its prosperity.

The Paris correspondent of the *Mark Lane Express* estimates the French vintage at 80,000,000 hectoliters, (2,113,424,000 gallons.) The distribution is quite unequal. The floods in the South have cut down the crop, while in the interior the yield is above an average.

The vineyards of France cover 4.27 per cent. of her area, and are found in all the departments except ten. This culture has notably increased since 1783, when from 3,873,943. acres 132,088,000 gallons of wine were produced, averaging nearly 35 gallons per acre. In 1873 the acreage had risen to 4,975,842, and the production to 943,523,030 gallons, averaging 189 gallons per acre. The most abundant year, 1875, yields about 2,113,000,000 gallons, while 1854, the poorest of late years, yielded only 235,044,601 gallons. In 1806 the average price was 20 cents per gallon; in 1873, 41½ cents. In 1837 the importation of common wines amounted to only 14,318 gallons, valued at \$4,442, and the exports to 31,224,281 gallons valued at \$3,503,694. In 1873 the imports amounted to 15,976,303 gallons, valued at \$4,913,443, and the exports to 106,652,195 gallons, valued at \$55,453,249. Wines are imported mostly from Spain, Italy and Germany. The bulk of the export goes to England, Belgium, the United States, Germany, and Algeria and other French colonies.

NOTE BY THE EDITOR.—The above summary we extract from the December report of the United States Commissioner of Agriculture. That Department is gaining in the public esteem with a rapidity its honest efforts to arrive at facts so richly deserve. To return to the wine question: we see that *less than one-twentieth* (4.27 per cent.) of the area of France produces something worth \$240,000,000. We in Virginia have the same natural advantages as France in respect of *all* the elements essential to the cultivation of the vine. Will we allow such a capability to remain barren of fruit a single moment longer than we can help? If the "Bureau of Agriculture, Statistics and Mines" were established, the facts in this behalf could be collected and presented, *with absolute exactness*, to the attention of the French people; and who can doubt of a response? Their skill and experience, transplanted to Virginia, would enable us to compete successfully with their mother country in the markets of the world.

HOW GRAPES ARE PRESSED IN SPAIN.

All the finer qualities of the pale, delicate, dry, tonical tasting wine known as Manzanilla are vintages in the neighborhood of San Lucar, just as the finer Amontillados are the produce of the Jerez district. As the vineyards of Torre Brea enjoy the reputation of yielding a superior wine of the former character, we carefully followed the vinification of it from the beginning to the end. The pressing of the grapes commenced between seven and eight o'clock in the evening, and was accomplished in a detached building under a low tiled roof, but entirely open in front. Passing through the gateway, and stumbling in the dim light afforded by an occasional lamp fixed against the wall over a rudely paved court yard, we found ourselves beside a row of large, stout wooden troughs, some ten feet square and a couple of feet deep, raised about three feet from the ground, and known in the vernacular of the vineyard as *lagares*. The bottoms of these receptacles were already strewn with grapes lightly sprinkled over with *yeso* (gypsum), which, if spread over the whole of the bunches, would not have been greatly in excess of the amount of dust ordinarily gathered by that large quantity of grapes conveyed in open baskets on the backs of mules from the vineyards to the pressing places in the towns. Rising perpendicularly in the center of each of the four *lagares* to a height of about seven feet is a tolerably powerful screw, which is only brought into requisition after the grapes have been thoroughly trodden. A couple of swarthy, bare-legged *pesadores* leap into each *lagar* and commence spreading out the bunches of grapes with wooden shovels; and soon eight of them, in their short drawers, blue striped shirts, little caps, and club-nailed shoes, are dancing a more or less lively measure, ankle deep in newly crushed grapes. They dance in couples, one each side of the screw, performing certain rapid pendulum-like movements which are supposed to have the virtue of expressing the juice more satisfactorily from the grapes than can be accomplished by mechanical means. Their dancing ended, the trodden grapes are heaped up on one side and well patted about with the shovel, like so much newly mixed mortar. This causes the expressed juices to flow out in a dingy brown turgid stream through the spout fixed in front of the *lagar*, and after being duly danced upon are shoveled on one side, and this kind of thing goes on until sufficient trodden murk has been accumulated to make what is called the pile. The *pesadores* now retire in favor of the *tiradores* or pressers, who, springing into the *lagares*, collect all the trodden grapes together and skilfully build them, by the aid of wooden shovels and that readier implement, the hand, in a compact mass around the screw, just as an expert plasterer would build up a circular column of Compo. The form taken by this in the first instance, owing to the weight of the murk, is necessarily conical. Consequently the base has to be neatly trimmed and the detached fragments built round the upper part of the column until this attains a height of some five feet. When perfected it is bound round with a

long band of *esparto* about four inches wide, from base to summit, and a flat wooden slab being placed on the top, with the nut of the screw immediately above it, the handles of the screw are rapidly turned, causing the juice to exude between the interstices of the *esparto*. For the first few minutes the labor is light enough. Presently, however, it becomes severe, and, although the pressers strain with all their might, they can only succeed in turning the nut by a series of successive jerks which necessitate the binding of their hands to the handle in case, when exerting their utmost strength, they should lose their hold of it, together with their footing on the slippery floor of the *lazar*. This treading and pressing of grapes goes on nightly for fourteen hours, with occasional intervals for refreshments, until the end of the vintage, lasting together for sixteen days.

[For the Southern Planter and Farmer.]

SYMPHYTUM ASPERRIMUM.

Experiencing the great want in this State of some good fodder plant, I was induced to place myself in communication with a gentleman in Europe who has devoted many years to this subject, and who has, after considerable expense of time and money, succeeded in introducing the above named plant into pretty general notice in France, Germany and England, where it is daily becoming more appreciated and valued.

The common name of this plant is Prickly Comfrey. There are several varieties of *symphytum* indigenous to Great Britain, but none of them are of much value for feeding purposes; but the true *symphytum asperrium* is a native of the Caucasus, and produces enormous crops of the best fodder, which, both in the green and dry state, is greedily eaten by horses, cows, sheep, pigs and poultry.

The culture of comfrey is simple and inexpensive. The ground is dug or plowed six or eight inches deep, and well manured at the same time. The crowns, or root cuttings, are then planted like potato sets, three feet apart. In winter the roots should be well dressed with farm-yard manure or sewage.

The comfrey, when dried into hay, makes good food for all kinds of stock, and the branches and leaves, made into bundles, are excellent for winter feed. The juice of the plant contains much gum and mucilage, but very little sugar. Cattle fed upon this plant are free from the ravages of lung and foot and mouth diseases. Its curative properties have long been known. It has been noticed that the plant thrives in all kinds of soil and aspect. The leaves, as they reach maturity, are torn off without injury to the coming crop. It is a hardy and free grower, the roots taking firm hold of the soil. After being once established they are difficult to eradicate, and the leaves, which are most abundant, can be gathered from the beginning of May to the first frosts without injury to the plant.

C. E. ASHBURNER.

NOTE BY THE EDITOR.—We know nothing of the above plant, but publish it as an item of interest. Mr. A. is an intelligent Englishman and a good farmer, living in Henrico county, near Richmond.

Stock Department.

[For the Southern Planter and Farmer.]

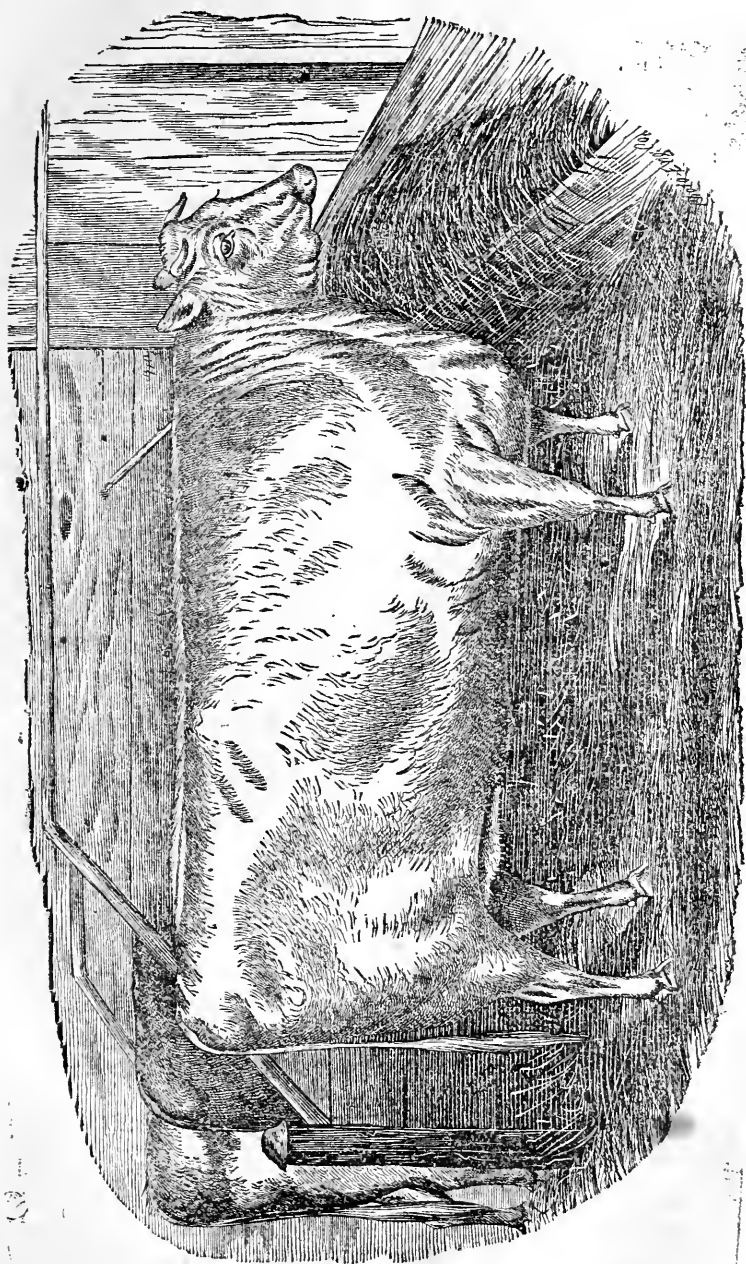
IMPROVE YOUR STOCK.

There is no fact in agriculture so fully established as that it will not pay to keep scrub stock on the farm. The cost of keeping an inferior cow is the same as that of a good one. A good horse will always bring more money, and is more valuable to his owner than a poor one. The cost of the keeping is precisely the same. Why should our farmers raise steers that at four years old will not weigh over 1110 lbs. and bring but \$55 per head; when by simply using a thoroughbred bull upon their native cows they can raise steers that at three years old and with the same cost per annum, will weigh 1500 lbs. and bring \$90 per head. We saw weighed on yesterday, a lot of twelve steers which had been raised together on the same farm, and had precisely the same treatment from calves up. Nine of the number were grade Shorthorns, the produce of a thoroughbred Shorthorn bull upon common cows; and three were natives. The average weight of the grade Shorthorns was 1460 lbs. whilst that of the natives was 976 lbs. showing a difference in favor of the grade Shorthorns of 484 lbs., which, at 6 cents per pound, would amount to \$29.04 per head; but this is not all the difference; the former would command at least a cent per pound more than the latter upon any market, which would add \$9.76 per head, or an aggregate of \$37.80 per head in favor of the grade Shorthorns. This is not an isolated case, but is about the experience of all who have ever handled Shorthorn cattle.

It may be said that our farmers cannot afford to pay from \$150 to \$200 for a Shorthorn bull to breed upon native cows, but a glance at the above figures will show that it will not take the profits of six grade calves to pay for him, besides, he will bring from \$75 to \$100 at the butchers when no longer fit for service. Another source of profit would be the fine grade cows that could be raised from, which, by the continued use of thoroughbred bulls for three or four generations, a class of cattle could be obtained scarcely distinguishable from thoroughbreds.

To those who are prejudiced against the Shorthorn and fear that he is not adapted to the wants of the Virginia farmer (an idea which we know to be wholly unfounded), and who persist in advocating the merits of those "little uglies," the Jerseys, or of the more profitable and useful Devons; as well as to those who insist upon following in the footsteps of their ancestors, and for fear that it might be termed a reflection upon their judgment hold on to the descendants of the "importation of 1607," we would say, by all means use a thoroughbred bull of whatever breed you believe to be best adapted to your particular wants. *But whatever you do, abandon scrubs.*

Whatever is true of improved cattle as compared with natives, is true of improved swine and sheep as compared with the miserable "land pikes" and "grubbers" that now infest the majority of our old Virginia farms. At no period since the close of the late war has pork raising been



Shorthorn.—Property of A. M. Bowman.

so remunerative as now, and judging from the large falling off of receipts at both Cincinnati and Chicago, and the almost general prevalence of cholera in the West, we would say the prospects are even better for the future. No farmer should be without a thoroughbred boar. The very best boar pigs can be had at \$15, and bred even upon a scrub will soon pay for himself the first litter, besides bringing from \$25 to \$35 for pork when no longer fit for use. When our farmers are brought to see the great difference between improved pigs and the miserable scrubs now so common with us, the cry will no longer be heard that pork raising don't pay in Virginia, and western bacon will have to be shipped to some "other seaport" to find a market.

In a future article we shall give some facts and figures showing the results of some crosses made with thoroughbred rams upon native ewes.

Augusta County, Va.

A. M. BOWMAN.

[For the Southern Planter and Farmer.]

WINTER CARE OF STOCK.

The usual indifference in this latitude in housing and sheltering stock in winter is a grievous fault, and in these days of *should be* penny savings, farmers cannot make a wiser improvement on the past, than looking to the improvement in the care and quality of their stock.

Whatever breed of stock may be adopted, let it be good and well bred, and of a fixed type, and suited to the section and purposes it is intended for. For most purposes Shorthorns and their grades are best.

Milch cows should be allowed a space of five feet wide and ten to eleven feet deep, or if in double stalls, of nine feet, and two in each, haltered to the corners, and their halters to allow them to feed in the trough, with a division midway, and the trough of roomy size to hold a good supply of food, with several bars across the top to avoid waste of food by each cow. The double stall of nine feet is better than single stalls of five feet, as there is more room for milking and feeding. Light, old, worn trace chains, two and a half feet long to the fork, with a T at one end and rings at the other, with a link between each of several rings to suit the size of the necks loosely should be used as halters.

These temporary stalls may be made in various ways, and the shelters may be of straw or frame work rather than not at all. The buildings of the farm may suggest other plans for feeding and milking under shelter. The stalls should be littered and the droppings thrown out each morning, and, if not too cold and stormy, let the stock out each day for exercise and to graze old sods, if to be had near by. Forage cut up, is of advantage to the stock, and *economy* in its use, and meal and bran sprinkled on it, after dampening the cut food, renders the food more acceptable to stock and beneficial to milk producing.

Calves should be cared for and fed with bran or meal twice a day on thin cut food, and not allowed to get poor. The same is important in their yearling form, as they must be sustained at that early age, and it costs but little to keep their little frames. This also applies to weanling colts; neither should they be crowded together, and of different ages.

Older stock should be housed or sheltered as far as practicable, especially in stormy weather, and so fed that each gets its share. Stock cattle may be sheltered from storms and falling weather by various cheap modes, and there is no better work done on a farm than uniform care of

stock in winter, and it is astonishing how a little meal or bran will show a marked effect on young animals, in the better and earlier start they take in the spring. Even a gill of meal or bran to each calf on its forage, cut up of chaff or sheaf oats, will show in a short time in the oily texture of their coats of hair.

To older stock, short corn, nubbins, slips, &c., judiciously fed, is next to meal with them in value, and the waste of corn passing through them is not lost, but will be valuable to shoats or hogs that may be allowed to range with them. If the hogs are disposed to root where they should not, the rings now to be had generally is a preventive, and cheaply procured and put in their noses.

The advantages of shelter is particularly valuable for cows and calves, that the milking may be done in rooms of warmth produced by animal heat, and then each animal may be better cared for. This, too, applies to cows that are to calve in a few months; care of them is highly valuable to start them into their fresh milking periods in good flesh. The various turnip and sugar beet crops are of great value to be fed as a mixture with the dry food of winter, which adds to the milk.

Shelter and separate apartments for work oxen is most important, and snug stalls, pens, or something to protect them from the sudden change from heat at work to cold, cheerless nights—the young and timid being whipped away from already a poor allowance of inferior food, when, too, the weaker oxen are more tired, and thus the more easily robbed of their share of food—whilst, on the other hand, if each one is to himself, he will eat his share at will, and rest to suit his wants.

This subject is one of great farm value, and is worthy of the thought and practice of all who own few or many animals of the kinds named.

Albemarle Co., Va.

S. W. FICKLIN.

[For the Southern Planter and Farmer.]

“GUENON'S ESCUTCHEON THEORY.”

There seems to be great reluctance on the part of scientific men to accept this remarkable indication of the milking qualities of the cow. They refuse all consideration of it because they “can't see the philosophy of it,” or indeed any philosophy in it.

But the history of science should teach us that observed fact should never, on this account, be rejected or disregarded; for how often has not our ever progressing philosophy unravelled the mysteries of facts which at one time seemed wholly inexplicable. Many yet remain unexplained, but they are, nevertheless, as surely *facts* as if they were well understood.

Of the truth of this interesting theory, the subject of this paper, based, as it unquestionably is, upon observed facts, and which asserts that the upward-growing hair in the vicinity of, or rather above, the udder of a cow does furnish an indication of her milking qualities, quite an extended observation has convinced me. My regular routine of professional labor having been interrupted by the war, and having been thus driven into the country just after I had studied all that Guenon had written upon the subject, I gladly availed myself of the ample opportunity thus afforded of comparing the escutcheons of cows with their reputed milking qualities. The result was so sat-

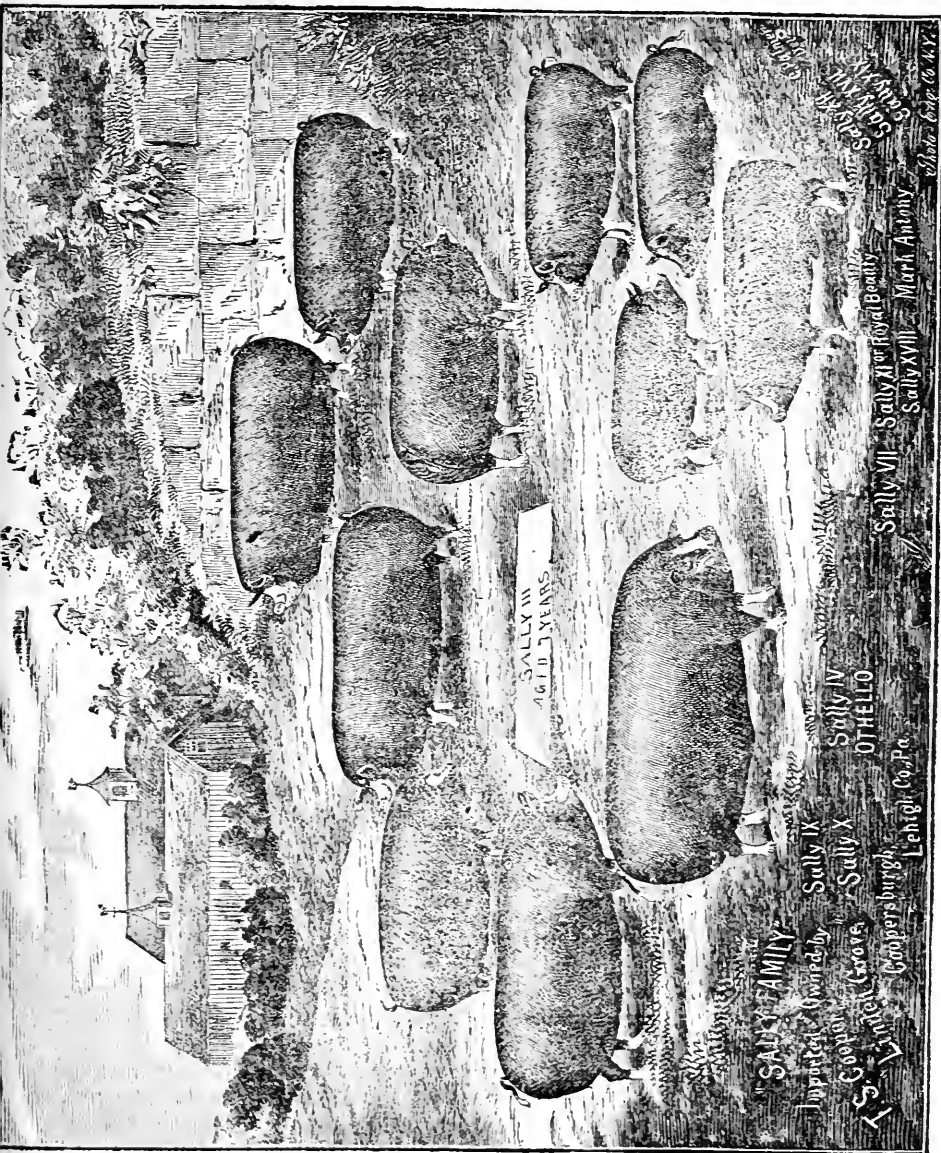
isfactory that, after a little experience, I was enabled to discontinue my interrogatories, and would in the most oracular manner tell the astonished milkwomen as much about their cows as they themselves knew; how much milk at the height of their flow they would give, and how long would remain dry between their calves. I might give some amusing instances of their wonderment and of their considering me a wandering "fortune teller."

My object now is not to attempt either to convince unbelievers or to give a philosophical explanation of this sign, but wish merely to remind the scientific sceptics of a few analogies in the animal economy which may, at least, incline them to think that there may be some philosophy in it, and make them less reluctant to accept it as a verity.

I look upon the abnormal direction of the hair in the escutcheon of the cow as an indication of the amount of circulation supplied to the mammary glands, the extent of the inversion depending on the degree of vascularity.

Now, instead of rejecting this proposition as an absurdity, let us look around for its analogies in nature. One of the first that strikes us is the upward tendency of the hair covering the brain of a highly intellectual man as contrasted with the downward turned hair of the idiot; and in cases of great mental activity, accompanied, of course, by great vascularity, we see the hair standing stiffly upwards, as in the case of "Old Hickory," and also in many living persons that might be mentioned. Indeed, a temporary "standing on end" during the great flow of blood accompanying the excitement of either fear or anger, is familiar to every one; that it should remain permanently erect in cases of habitual cerebral excitement need not be wondered at. Many cases of abnormal growth of hair, consequent upon great vascularity, whether temporary or abiding, occur to the physician, one of the most remarkable of which is that which takes place in the eyelids during ophthalmia, or from exalted action of whatever kind. The erythasm of the hair-bulbs give rise to an abundant growth of cilia or eyelashes, and in unnatural directions, producing the affection called by oculists "trichiasis." I have seen this state of things supervene even upon inflammations having a traumatic origin, and which proved of great obstinacy until this singular complication was removed. This abnormal growth of hair is very common in eyes overstrained by reading or sewing, and though often but temporary, is most frequently chronic and permanent, and affords a good illustration of the subject of this paper.

In horses of high metal, of great nervous power, abnormal growth of the hair on the forehead or on the neck, near to the brain or in the course of the cervical spinal column, are not uncommon. These whorls have always been a popular sign of a high-spirited horse. The "cow-lick," an upward-growing lock of hair, which occurs frequently in children at an early age and remains through life, may be adduced in opposition to my position, as it sometimes exists in persons not remarkable for mental activity; but it, too, really furnishes



an illustration of the principle for which I am contending. This unnatural growth was probably occasioned by an inflammatory action supervening upon a fall or blow upon the head, which may have resulted in some concretion, which, pressing upon the brain, may be the cause of intellectual dullness. The upward-turned hair in this case is not an indication of present vascularity, but of an exalted circulation that existed at some previous time.

I hope that few instances of the abnormal growth of the hair of animals will lead the scientific observer not to reject this theory as unphilosophical, but may stimulate some investigator to further research into its connection with the blood supply of the adjacent organs.

S. K. JACKSON.

Virginia Agricultural and Mechanical College.

[For the Southern Planter and Farmer.]

LEICESTER SHEEP.

The attention of many farmers at the present time being turned to the sheep question, and many candidates for their favor being in the field. I hope you will give me space for a few words on the Leicester. At the recent State Fair there were exhibited fair specimens of Cotswolds, South Oxford and Shropshire Downs, but the Leicesters were very third raters, and could only convey a faint idea of what superior sheep they really are. More than a hundred years have passed away since the days when Bakewell, of Dishley, was a living name, and his experiments, conducted with rare skill and judgment, resulted so successfully in the production of the improved Leicester. Mr. Bakewell's aim was an animal whose shape would yield the largest proportion of valuable meat and the minimum of offal, the most and finest wool, and whose rapid growth and fattening was attained by the smallest quantity of food. These qualities the modern Leicester retains, and, though the fancies of holders and breeders of divers strains of blood have stamped it with many local and other features, the foundation is the same, and the good points of a century ago are the traits of excellence of to-day.

The importance and influence of a superior male is acknowledged by all breeders; so I shall here specify the requisites of a good Leicester ram, hoping the tyro in sheep husbandry may secure such a one for the sultan of his flock. His head should be small, with wide expanded nostrils, his eyes prominent; broad shoulders, well set on and well filled up behind; straight legs, with fine bone standing wide apart; the back and loins broad and straight, with belly ditto, a deep, full twist and soft bright wool clothing a thin, fine skin. The nearer any breed of sheep comes up to this standard the nearer it is to perfection; and an animal having so many of the attributes of excellence as the Leicester undoubtedly has, must be the one to stamp its characteristics on native and other races. To paraphrase Mr. Curtis' (of Michigan) opinion of Shorthorns: "It (the Leicester) improves everything it touches. It is the best known breed for improving native stocks. They are kind and gentle, easily handled, good breeders and good mothers. I make no war on any breed—they have all good points; but the *Leicester* indubitably has the most good points."

In sheep-breeding, wool has sometimes been sacrificed to mutton—

mutton occasionally to wool, with champions on either side. But ought we not to use an animal growing the maximum of both without prejudice to the quality of either? Much skill, energy and money have been expended on this breed since Mr. Bakewell's days, and many breeders, including Messrs. Sanday, Cresswell, Inge, Wiley, Jordan, Turner and Pawlet, have reaped great profits and distinction in the cause. Messrs. Burton, &c., head the list of the present day, and the prices of fashionable rams are very high and beyond the reach of most; but good blood is to be had at moderate rates, and it should be the shrewd farmer's aim to make the less costly animals as useful, handsome and excellent as the most expensive. This end attained, and their virtues transmitted to their progeny even as the good qualities of the choicest are handed down, the farmer's success is at least a solid one; and if he does not attain fashion and sensational prices, he finds a profitable result in the produce of his own judgment and industry.

R. J. F.

SHEEP HUSBANDRY.

Some cautions are necessary to those who think of turning their attention to sheep husbandry. There is no use of attempting it with inferior sheep, unless pure-bred bucks are at once used to improve them. It is useless to attempt this husbandry, unless the flock is sufficiently large to deserve attention. The planter must give his personal attention to the business, unless he has absolute confidence in his shepherds. The flock must be the object of as constant attention as the corn or cotton field.

The cotton and grain crops on the plantations need not be reduced—in fact, they will be greatly increased, and be made on less surface of land, by the heavy manuring from the sheep. It is estimated that a flock of 1,000 sheep, folded on one acre of land, will thoroughly manure it in two nights; or, in round numbers, 180 acres of land will be so thoroughly manured in one year as to easily produce one bale of cotton to the acre. The manure of the sheep alone will more than pay for their keeping.

There is another view to take of sheep husbandry that is not often mentioned. As soon as we have an abundance of fine wool on each farm, woolen factories will spring into existence, and a large proportion of our wool and cotton will be manufactured at home for home consumption. We will retain at home vast sums of money that are now sent abroad for woolen and cotton goods. The Charlottesville and Fredericksburg mills are now manufacturing superior woolen goods, and we have no doubt there are other factories in the State that are doing the same thing. If these factories could be assured of a regular and constant supply of fine wools, they would greatly increase their manufacturing capacity, and make not only a home market for our wool and cotton, but for a thousand other things that can be profitably raised on a farm.

To make sheep husbandry successful at the South, the sheep ought never to be without a shepherd. One shepherd can easily attend to five or six hundred sheep, and no extra labor will be required, except at time of shearing.

AN Ohio hog grower says that the following treatment will make the biggest hog out of a pig in twelve months: Take two parts of barley,

two of corn, and one of oats. Grind them together; then cook and feed cold. He says it is the cheapest food, and that any pig of good improved breed can be made to gain a pound a day until a year old.

HOW TO IMPROVE YOUR STOCK.

We publish the following private letter as an example of what all our farmers should do who wish to improve their stock.—Ed.

* * * I have recently purchased a thoroughbred Alderney bull, sired by "Our Fritz," of New Jersey, and in a few months I shall order from F. W. Chiles, of Louisa, a thoroughbred Devon heifer, and then you shall hear from my success. I have a thoroughbred Southdown buck, purchased from him last summer; he is doing well. I have also recently introduced into my swine a full blood Berkshire boar.

I have grown and exhibited in Franklin the largest and heaviest turnips of any planter in "Goode's district;" the largest weighed 14 lbs., top off. Can you do better than that?

Southampton county, Va.

M. L.

SHEEP vs. DOGS, WOLVES, BEARS, WILDCATS AND RED FOXES.

Ex-Governor Letcher presented a bill in the House of Delegates, entitled a bill "to raise revenue for the support of the government, the payment of the State debt, and the encouragement of wool-growing." It provides, first, that a tax of one dollar shall be imposed on every dog, and of two dollars on every bitch (unless she be spayed), to be paid by the owner or harbinger thereof; second, that the assessor of every district shall enumerate the dogs and bitches therein at the time of making the assessment of personal property for taxation, and that he shall have power to take the sworn statement of any owner of dogs, &c., as to their kind and number; third, that the Treasurer shall collect the tax thus imposed, and any person failing to pay within ten days after lawful demand shall be guilty of a misdemeanor, and finable on each dog, &c., a sum not less than \$3 nor more than \$5, in addition to tax and costs—but may be relieved of the fine on agreeing to immediately kill the dogs, &c., and paying the tax and costs; fourth, that it shall be a misdemeanor to keep or harbor a sheep-killing dog, &c., on a penalty of not less than \$10 nor more than \$20, &c.; fifth, that in payment of the dog tax the following scalps may be received: wolf scalps at \$2 each, and the scalps of bears, wildcats and red foxes at \$1 each—provided the animals be killed within the limits of the State, by the citizens thereof.

NOTE BY THE EDITOR.—This is a move in the right direction, but we fear the "commutation" clause will utterly defeat its purpose. The very people the law is intended to reach, namely: the idle negroes, who like noxious weeds cumber our soil, would wish nothing better. They could devote, if need be, an entire month to finding a red fox, when the delivery of his scalp would pay the tax

on their dog; leaving the poor sheep as badly off as they were before. The love of the chase, peculiar to our people, will take care of the game mentioned in the law. *We want a money tax, and no commutation whatever.* A compromise is no compromise at all if its benefits all go to one side; and they certainly do if the above is a fair synopsis of the bill proposed by Ex Governor LETCHER, and we think it is.

Poultry Department.

"WHICH BREED IS THE BEST?"

Scarcely a mail is taken by us from the postoffice that does not contain one or more inquiries similar to the above, in tenor. Beginners all over the country ask "What shall I commence with?" "What do you consider the best varieties?" "How shall I begin with a choice of breeds?" etc.

A general answer to this sort of a query can only be given in brief, inasmuch as it depends largely upon what the amateur intends to attempt to do, what his facilities may be, what his location is, and whether he purposes to breed as a fancier for the show rooms; as a farmer for marketing simply; for egg-producing mainly, or for eggs and chickens in a general way. For the reproduction of the largest quantities of eggs, the Leghorns, Spanish, Houdans and Hamburgs may be counted as the best. These varieties are generally non-sitters, and during the milder portions of the year, they lay generously and satisfactorily, if attentively cared for. If fowls are intended to be raised for marketing purposes, with a view to produce the most meat at a given age, a cross of those lesser-sized varieties with the Cochins and Brahmas is desirable to get good average chickens.

The Asiatics are usually more hardy than the others, and the infusion of this blood with the small breeds not only increases the size of the progeny, but the cross approaches maturity more rapidly if well fed from chickenhood up. The Brahmas and Cochins are persistent sitters, however, and though they are good winter layers if the pullets are got out early in the season, they are not so good a fowl (pure-bred) as the others first mentioned, for summer layers; while as mothers, or for hatching purposes, they are unrivalled. We have found the Partridge Cochin and Dark Brahma varieties excellent layers in cold weather, and this is a desideratum with many fanciers.

For the show room, as a general thing, the Cochins of different colors from black to white, and the Light and Dark Brahmas, taken as a class, have long been foremost in the consideration of American breeders. They are placed at the head of all the premium society

lists, and probably more in numbers of these huge birds are bred than of others. Then come the Grey Dorkings, the Plymouth Rocks, the White Dorkings, the French fowls, and the lesser-sized ones. We have hitherto advised, and still recommend to amateurs, the policy of commencing with but one or two kinds only, at first. And in answering the general question, "Which are the best?" we can only first decide the object had in view, and this will determine whether the novice should try sitters or non-sitters, pure-bred or cross-bred birds. Having so resolved, a choice of kinds, as above enumerated, will result in satisfaction and profit, if any of these popular varieties are properly cared for.

We have bred nearly all kinds, first or last, and bringing it down to a fine thing, we have found that, taking the year through, the Asiatics will lay as much in value, on an average, as any of our domestic varieties. For numbers of eggs, the Leghorns will excel the others, perhaps, in a twelve month. The French fowls lay a good-sized egg, but not so many as either of the other varieties, and the chicks of the latter are far more tender and difficult to rear than those of any of the Asiatic varieties. The Dorkings, crossed with the Brahmas, give a good-sized chicken the first year, and this makes an excellent farmers' fowl. But the crossing of the various Leghorns with the Brahmas and Cochins is one of the very best certainly for general use, where "fancy" breeding is not attempted. For this latter purpose, it is hardly necessary to add that only pure bloods should ever be bred together, of the *one* chosen variety.

WOMEN AS POULTRY RAISERS.

The special capacity of women for caring for pets is so well established that it is a matter of surprise that a larger number do not make their natural inclination a matter of profit in the raising of poultry. There is no reason why woman may not be as successful as man in this branch of productive and profitable industry. Indeed, when it is considered that the business requires close attention to minute details, patience and gentleness of manner, woman seems to be peculiarly fitted for the business. The Danbury man's humorous description of the different ways in which a woman and man attempt to get a hen into the coop, and the superiority of the former's method is as true as it is funny. After the hennery or coop is built, there is no department of the work that a woman cannot perform without exhausting labor or too heavy demands upon her time. "Down South" poultry raising is woman's special department, and one need not go farther South than Baltimore or Washington to find the markets thronged with the female venders of their own feathered products. That the business is profitable, the experience of hundreds testifies, and that it is healthful, and may be attractive, is susceptible of demonstration.

COOK YOUR POULTRY FOOD in part, and feed it, at least once a

day this cold weather (in the morning is the best time), while it is hot. Mix with this soft feed, which should be composed of meal and vegetables, a little salt, and occasionally a small quantity of powdered charcoal and pepper. This renders it warming, cleansing and palatable to the birds.

The value of potatoes, turnips, etc., thus cooked with bran and corn-meal, is not generally appreciated; it keeps the fowls in good heart, and is altogether economical, as well. The scraps from the table can be used up with this feed, and all the dry bits of the family may thus be utilized. If you keep but a few fowls, one-half their cost of feeding may thus be saved. If you have large numbers to provide for, the expense for food is greatly lessened, in the long run, by this process, and your birds will be quite the better for this treatment, instead of limiting them to dry grain and "cold victuals" continually. Fresh vegetables are valuable for their nutritive material, and for the assistance they afford in digestion.

FEEDING-TROUGHS FOR POULTRY, properly constructed, ought to be generally substituted for the wasteful practice of feeding from the ground. The "reasons why" are obvious. Where there is a scramble for the food that is thrown helter-skelter, the weak are prevented by the strong from getting their share until the latter are satisfied, and the food is trampled into the dirt. It is no advantage to fowls to eat sand, dirt or gravel mixed with their food. The gravel and other indigestible substances necessary to the proper trituration of their food in the gizzard, can be given separately, and should be. A simple trough may be made, defended by slats placed vertically, or on a convenient angle, with spaces sufficient for the passage of the head, thus preventing the trampling and soiling of the food, which will not be wasted, as in the case where it is thrown carelessly on the ground.

CHICKEN CHOLERA.—In response to several letters asking for recipes for disinfecting mixtures to use about poultry-houses and yards, where the above-named dreaded scourge prevails, we give the following: Eight or ten pounds of sulphate of iron (copperas) dissolved in five or six gallons of water, with half a pint of crude carbolic acid added to the solution, and briskly stirred, makes the cheapest and best disinfecting fluid for common use. It can be procured in every town, and by any family, and if the carbolic acid is not at hand, the solution of copperas may be used without it. Sprinkle the walls, nest-boxes, and perches daily, with the above.

For the disinfection of ground on which any excremental matter of diseased fowls (or of those suspected of disease) has been cast, use the "dead oil," (heavy oil) of coal tar, or coal tar itself. It is a good plan to use coal tar as a paint for the inside of poultry-houses, in districts invaded by chicken cholera.

ORGANIZATION OF A POULTRY AND PET STOCK ASSOCIATION OF VIRGINIA AND NORTH CAROLINA.—A meeting of a number of gentlemen interested in the breeding of poultry and pet stock, was held at the office of the *Southern Planter and Farmer* December 15th. An Association was organized to be called the Virginia and North Carolina Poultry and Pet Stock Association, and the following officers were elected: A. M. Bowman, of Augusta county, president; First Vice President, R. T. Fulghum, Raleigh, N. C.; Second Vice President, Dr. L. R. Dickinson, Richmond; Third Vice President, V. M. Firor, Charleston, W. Va.; Fourth Vice President, Dr. E. C. Withers, Danville, Va.; Fifth Vice President, W. S. Thorn, Wythe county; H. Theodore Ellyson, Richmond, Secretary and Treasurer.

The following persons were elected members of the Executive Committee; Dr. T. J. Wooldridge, of Hanover county, chairman; T. L. Payne, Chesterfield county; W. H. H. Lynn, Staunton, Va.; J. McL. Anderson, Caroline county; F. W. Chiles, Louisa county; S. W. Ficklin, Charlottesville, Va.; J. L. Hill, Richmond, and W. F. Pattullo, Farmville.

A committee on Constitution and By-Laws was appointed, which will report at a meeting of the Association on the 11th of this month, at 4 o'clock P. M., in the office of the *Planter and Farmer*.

We gladly publish the above, with the hope that all of our farmers who feel any interest in the matter will become annual members.

When we consider the real value of the poultry interest to our people it does appear strange that Virginia has never before established a Poultry Society. All of the States, North, South and West have their State Poultry Societies, besides, in many cases, local societies. If facts could be ascertained, we venture the assertion that with most of our farmers (who pay any attention at all to raising poultry) it forms the most *profitable department* of their farms, in proportion to the labor and capital invested in it. Then, taking this assertion for granted, let us imagine what an amount of profit could be realized from it, if pursued with energy and in a systematic manner.

Mr. Louis Ott, of Nelson county, Va., in a private letter, writes: "I will furnish you with a description of a *henery* in Bohemia, where 5,000 hens are kept for the production of eggs, and an enormous number of fowls of all kinds are fattened every year. In the year 1859, I spent several weeks on that place for the purpose of studying the matter and making extracts from the books of the establishment. From that henery \$33,000 worth of eggs and fowls were sold during the year 1858, while the expenses amounted to about \$10,000, leaving a net profit of \$23,000. I suppose a description of that henery might be interesting to many of your readers."

THE POULTRY WORLD is the best poultry journal published in this country. We are indebted to it for some of our best *poultry* matter in this number of our Journal. We advise our readers to subscribe to it. Address H. H. Soddard, Hartford, Conn.; price \$1.35.

NO GARDEN is complete without a supply of all the small fruits. What an addition to the luxuries of the table are the luscious fruits of the garden throughout the entire summer. They promote health. The acids of the fruits separate the bile from the blood, and ward off bilious complaints, promote health and ward off bilious complaints, promote health and prevent doctor's visits. Every one should have a fine garden.

Horticultural Department.

[For the Southern Planter and Farmer.]

PLAN FOR A WHOLESALE MARKET FOR VEGETABLES IN RICHMOND.

Having returned from a visit to Philadelphia, I thought I would give you a sketch of their wholesale produce market. I think if something similar could be introduced here it would be of great benefit to the farmers supplying the Richmond market, and the people of Richmond also. Along the Delaware river, in Philadelphia, are several markets for the sale of fruit and produce, most of which comes from New Jersey and Delaware. These markets supply most of the hucksters, grocers, hotel-keepers, and many private families with fruit and vegetables. Most of the fruit and produce sent to these markets are put up in baskets and crates, with name of consignor, consignee, destination and point from whence shipped marked plainly on each package. The consignee marks on his books so many packages of fruit or vegetables to the consignor; as they are sold the amount received is placed to his credit on the books, less five per cent., which is charged for commission. The goods are well taken care of and protected from the weather until sold. Money is remitted as often as may be agreed upon. To persons buying in large quantities a reduction in price is made; but a person buying several packages must pay the same price per package as if buying only one. Many persons with large families often buy a basket or crate of fruit or vegetables at a time, and save a great deal of money, as the hucksters and grocers must charge more to make any profit, being obliged to retail in small quantities. There are other market-houses in different parts of Philadelphia for the retail trade, but even there some men sell any goods consigned to them on commission in the same way as before mentioned. Besides the markets spoken of, there are some of the best business streets allotted to farmers *free of charge*. On streets running east and west they occupy the shady side in summer, and sunny side in winter, but are not allowed to stand within three squares of a market-house.

How different here! You pay ten cents for the privilege of nearly roasting in summer and freezing in winter, the same side of the street being occupied all the time. How much better the wholesale market would be for many farmers. As it is now, many of them bring large quantities of the same kind of produce at the same time, and glut the market; but they must sell at a great sacrifice or haul it home. Another time the same article, or others very necessary, may be very scarce in market, although the farmer may have plenty at home; but he is not aware of the fact in time to avail himself of it. Now, if such a market was established here, the commission merchant could keep the farmer posted so as to know what kind of goods was needed, and when to send them; and what is more, he could send them by any person capable of driving a cart. The markets would be better supplied, and should they be overstocked with any particular article, the merchant might ship to other points and realize a fair price in the end for the farmer. It would

also be a check to any extortion of middlemen, as any person, by taking a package or bushel of fruit or produce, would get it nearly as low as the huckster. The system works well in Philadelphia, and I do not see why it would not here. It is worth a trial, at least. Let the Grangers combine and start it; the other farmers will soon join in when they see the benefit of it. But let us have the opinions of others on this subject.

Hanover county, Va.

J. S.

[For the Southern Planter and Farmer.]

POTATOES.

The soil best adapted to this crop is a good clay loam, rich in organic matter, with a little sand by way of shortening. A rich piece of new ground will produce potatoes of extra quality, but not in extra quantities. Land which has been highly manured, or is of great natural fertility, and which has been well cultivated for a number of years is desirable for this crop. A good clover sod is hard to beat. Potatoes love a mellow soil, therefore the land which is to be planted in potatoes should be well plowed in the Fall or early Winter, so that it may be thoroughly mellowed by the frosts of Winter. If stable or barn-yard manure is to be used on the crop, it should be well rotted and applied to the ground after plowing in the Fall. Of commercial manures a good super-phosphate is best, applied in the drill; wood ashes and well rotted wood pile manure are excellent fertilizers for this crop.

Plant your early potatoes early, and your late potatoes late; so that the early potatoes may mature before the heat and drouths of midsummer; and so that the late potatoes will not mature until the heat and drouths are passed and before the coming of frost. The early varieties should be planted in February or March or as soon as the ground can be worked in the Spring, but be careful not to work your potato ground when wet. For *very early* potatoes plant in the Fall and cover deeply, and then mulch the ground to prevent freezing. The late varieties should not be planted until after the first of June.

Having prepared the ground well, lay off the rows with any convenient implement, two and a half or three feet apart, and from four to six inches deep, cut your potatoes in small pieces, with one or two eyes only to each piece. Each eye makes a vine, and many vines make few and small tubers. Plant the pieces in the bottom of the furrow about one foot apart. My own practice is to walk in the furrow, setting one foot close in front of the other and planting a piece of potatoe close to the toe of each foot as I put it down. In planting always put the cut side down and the eye up. Cover with a turn plow or any convenient implement. Cultivate thoroughly at least once in two weeks until the blossoms appear and the vines begin to break down. A coulter or a bull-tongue is preferable, because it loosens the ground to a considerable depth. A little dirt may be thrown to the vines, but don't hill or ridge. On land of only average fertility, mulching will be found to be of very great

benefit. Having planted and *covered* your potatoes as for cultivation, but in rows only two feet apart, cover the whole surface of the ground with a mulch of leaves, short straw, rotten chaff, very coarse strawy manure, or other litter about six inches deep. Your potatoes will then be secure against drouth, and will need no other manure, and no cultivation whatever. If your ground has been well prepared before planting there will be no weeds of any consequence, and the few that force up through the mulch may be easily pulled by hand. On lands suffering much from drouth this will be found to be the best of all ways to grow potatoes. It will require considerable labor and time to haul sufficient litter to cover the ground effectually, but you will be well repaid for both; if mulched in this way, the potatoes will, for the most part, grow just on the top of the ground and under the mulch, and they can easily be dug by hand, a small pronged hoe being the best implement to use. If not mulched use a two-horse plow to raise the potatoes, letting the team straddle the row, keeping the plow canted over a little on the land side, and running it in the middle of the row. After picking up all the potatoes thrown out by the plow, run back in the same furrow, and you will get them pretty much all. Dig your potatoes as soon as the tops begin to die, or the potatoes will sprout in the ground. If planted in March the early varieties will ripen perfectly by the tenth of July; and the ground may then be plowed and sown to turnips, making the best preparation for this crop of which I have any knowledge. Put your potatoes under cover as fast as you dig them, especially if the sun be hot; for exposure to a hot sun materially injures them both for table use and for seed, causing them to blister and become watery, and making them liable to rot. Store in a cool dark place; a good cellar, cool in summer and frost-proof in winter is best; do not put too many in a pile or they may heat and rot. I use bins three feet wide and eight inches deep, arranged like shelves around the sides of the cellar. If kept in a dark cellar, or covered from the light with old carpets, bags, or straw, they will not sprout so soon in the Spring.

Select medium sized potatoes for seed, and it is best to select them soon after digging the crop. Potatoes deteriorate rapidly in our climate and soil, our winters not being long enough to keep them well, and it will be found advisable to secure fresh Northern seed as often as once in three years.

On suitable land potatoes pay quite well as a market crop, not requiring as much labor as tobacco, and bringing in fully as large returns. Besides being so important as subsistence for the farmer's own family, they are excellent feed for cattle and pigs, either boiled or chopped fine and mixed with meal. For feeding to young pigs the small unsalable potatoes are worth at least half as much as corn. They are also much relished by chickens if boiled, chopped fine and fed warm, and are highly recommended by some poultry fanciers as feed for hens, especially during the winter and spring.

Albemarle Co., Va.

A. A. MACD.

MARKET GARDENING NEAR LARGE CITIES.

No matter how favorable the location, nor what the character of the soil may be, he tills to great disadvantage who fails to make a liberal annual application of manures. The question for the gardener is, How much manure can I use with increased profit? and, if he is alive to his own interest, he will soon discover that the quantity that can be so applied to an acre is large.

Of the bulky manures, that from stables where the horses are fed on grain and hay is of most value. This quality of manure, almost free from straw, we buy at Newark, N. J., at an average of one dollar and thirty-eight cents for a two-horse load. This is hauled and thrown in heaps, sometimes composted with tanner's refuse and woods earth, turning it over two or three times before applying it. Market-gardeners will use from fifty to seventy loads of this manure to an acre, besides a top-dressing of five or six hundred pounds of a special fertilizer.

For the past four years we have contracted for all the refuse from a large soap factory, and have found this waste lime, potash and fatty matter a valuable top-dressing, applying it at the rate of three or four tons to the acre. We have also used a compost made by decomposing muck with the salt and lime mixture,* then adding to this compound an equal bulk of yard-manure. At the end of six months the whole mass is homogeneous, and, when turned under for garden-crops, is fully equal, load for load, to pure horse manure.

Gardeners in our section use "slaughter-house" manure with profitable results. This is usually composted with other manures and left in a pile for several months before using it. It costs about one dollar and fifty cents a two-horse load, and in quality is about the same as a load of horse manure.

We have used as much as seventy-five tons of dried blood, or sugar-house scum, in a single season; when this is broken finely and composted with horse manure and woods earth, it is a powerful fertilizer for all kinds of crops.

Wood ashes are always highly esteemed, but of late years the supply has been very limited. Unleached wood ashes are worth from forty to fifty cents per bushel; for fertilizing purposes, using ten to twenty bushels to an acre. A top-dressing of lime every third year, thirty or forty bushels to the acre, spread broadcast, and harrowed in just before planting, pays handsomely.

Every available substance that will make manure should find its way to the compost heap or hog-pen, to be worked over, and thus add to the capital for the garden; on this will greatly depend the success.

Of the concentrated fertilizers now in general use, both for the kitchen and market gardens, are finely-ground bone, Peruvian guano, superphosphate of lime, and last, but not least in value, fish guano. The required quantity of these will depend on the condition of the soil. Besides the main supply of yard manure, we use annually from three hundred to one thousand pounds to an acre, and find that such an application of a pure article pays well.

CAPITAL.—With the farmer, the laying out of a kitchen-garden should

* The salt and lime mixture is made by dissolving one bushel of salt in water, and then taking three bushels of lime with the salt water. This mixture should be turned over two or three times under a shed; one bushel of it will be enough for a cord of muck.

be of the first consideration. In spare moments a fence can be put around the garden, which should be located convenient to the dwelling. With a full supply of the leading kinds of vegetables, farmers could board their help for about one-half of what it costs when only meat, bread and potatoes form the principal food. With the farm work properly arranged, the kitchen-garden can be kept in good order without any extra cost for labor.

For the market-gardener, capital is very important when the proprietor knows how to use it—an art learned only by experience. It does not make much difference how intelligent a man may be in other respects, nor how much capital he has to start with; if he has had no experience in the business, he lacks the main element of success.

We know personally a large number of well-to-do market-gardeners—men now worth from ten to forty thousand dollars each—none of whom had five hundred dollars to begin with. Industrious, hard-working men, these, who at first turned every available dollar into manure and reliable seed. In fact, he who would be successful in market-gardening must take the lead in all kinds of weather and all kinds of work—late and early, rain or shine. To stalwart young men, even with a limited capital, willing to work industriously, the chances of making “money in the garden” are as promising as ever they were. “Whatever is done, let it be well done.”—*Quinn's “Money in the Garden.”*

CULTURE OF CRANBERRIES.

Where do all the cranberries come from, is a question often asked, and on investigation we are fairly astonished to witness the rise and remarkable amount of business now transacted in this small fruit. To those having low lands, useless for any other purpose, the cranberry, once planted, often yields the possessor a greater profit than any similar area of other crops on the same farm.

The consumption of this fruit is extending rapidly into all parts of the world; is becoming more and more a household necessity. No tea-table is now considered complete without it, and on ship voyages it is of almost indispensable utility. New Jersey raises the largest bulk of cranberries in this country, employing about six thousand acres for the purpose, the value of the crop raised on which, last year, was \$600,000. The whole cranberry crop of the country is estimated at about \$1,500,000. Massachusetts raises not less than ten thousand barrels a year. Within the past five years Wisconsin has made rapid progress in the culture of the cranberry, and the crop in that State this season is estimated at \$300,000. The average price per barrel of this fruit is \$10, Cape Cod cranberries commanding the highest price. The fruit raised on the Cape is the best of its kind in the world. It is exported largely to England, and finds its way to the Queen's dinner-table.

Those who have spots usually regarded as waste places on their farms, places too wet to plow or to mow, may, by proper management, have their cranberry patch, and grow for home consumption and for market. Let such waste places be utilized by growing cranberries.

FRESH TOMATOES GROWN AND CANNED.—We are glad to know that John B. Davis, Esq., of this city, has proved, after several years' experience, that the canning of tomatoes can be as successfully and profitably conducted in Virginia

as elsewhere. His magnificent estate, "Leslie Manor," in King William county, had hundreds of acres in this fruit during the past year, which he has successfully canned and sold at profitable prices.

Mr. Jas. T. Tinsley, of Hanover, also commenced this business the past year, and he is pleased with the results. Both of these gentlemen have promised to give us an article on their systems of cultivating and manufacturing this fruit for our next number.

"*Gardening for Pleasure*" is the felicitous title of Mr. Peter Henderson's new work on the cultivation of vegetables, fruits and flowers. It has proved equal in interest and value to his two previous books, "*Gardening for Profit*" and "*Practical Floriculture*." Price, \$1.50. For sale by Orange Judd & Company, New York.

Grange Department.

OFFICERS OF THE STATE GRANGE.

Master—J. W. White, Eureka Mills, Va.

Overseer—T. T. Tredway, Prince Edward, Va.

Lecturer—J. W. Morton, Eureka Mills, Va.

Steward—Wm. McComb, Gordonsville, Va.

Asst. Steward—I. B. Dunn, Washington county, Na.

Chaplain—J. C. Blackwell, Buckingham, Va.

Treasurer—W. B. Westbrook, Petersburg, Va.

Secretary—M. W. Hazlewood, Richmond, Va.

Gatekeeper—M. B. Hancock, Charlottesville, Va.

EXECUTIVE COMMITTEE.

A. B. Lightner, of Augusta.

R. V. Gaines, of Charlotte.

A. M. Moore, of Clarke.

R. L. Ragland, of Halifax.

SOME THINGS WHICH THE PATRONS PROPOSE TO DO.

1. To secure for themselves, through the Granges, social and educational advantages not otherwise attainable, and to thereby, while improving their condition as a class, ennoble farm life, and render it attractive and desirable.

2. To give full practical effect to the fraternal tie which unites them, in helping and protecting each other in case of sickness, bereavement, pecuniary misfortune, and want and danger of every kind.

3. To make themselves better and more successful farmers and planters, by means of the knowledge gained, the habits of industry and method established, and the quickening of thought induced by intercourse and discussion.

4. To secure economies in the buying of implements, fertilizers

and family supplies, and in transportation, as well as increased profits in the sale of the products of their labor, without enhancing their cost to the consumer.

5. To entirely abolish the credit system in their ordinary transactions, always buying and selling on a cash basis, both among themselves and in their dealings with the outside world.

6. To encourage co-operation in trade, in farming and in other branches of industry, especially those most intimately connected with agriculture.

ARBITRATION.

Among the benefits to be derived from the organization of the Order of the Patrons of Husbandry, we desire to draw the attention of our readers to the system of "arbitration." Why should our farmer, on the slightest provocation, "go to law?" Has any one of them made anything by it? Even if they have gained their case, have they not generally been the losers? And how many, if not the majority of law suits, have sprung from some trifling cause? All this, brother farmers, can be avoided by simply consenting to appear before a commission of three, selected by each Grange, whose business is to hear and decide such cases as may be brought before them, it being understood that all the members of the Grange agree to abide by the decision rendered by this committee. Hasty actions will be prevented, and all of us will acknowledge that many law suits are the result of passion, often bitterly repented of. We would beg our Granges to consider this subject well, and try their best to have a "Committee of Arbitration" established in each Grange. It should be made a law that any case not amounting to more than the value of \$— should be brought before the committee. We have seen the salutary influence of such committees. In the kingdom of Denmark, where it has existed for more than thirty-five years, nobody can go before the court with a case without first having submitted it to the committee. If this fails to settle the difficulty, then they can proceed to law. Seldom does a minor case fail to be settled before these committees; thus fortunes are saved to the people. But it does not only save money; it prevents the growing of ill-feeling and enmity. Prolonged law suits create and nourish them; a speedy settlement destroys these feelings in the bud. Thus, morally, the system of arbitration has a beneficial influence on society.—*Our Home Journal*.

PROFITABLE GRANGE WORK.—An Alabama Grange has appointed a committee to visit the farm of each member of that Grange, and to report in writing the state of the growing crops; the condition of farm and fences; quality and condition of stock; methods of cultivation; rotation of crops; kinds of crops raised and the varieties of each; varieties of fruits raised, and the general condition of farm buildings. These reports are not for publication, unless the

owner desires, but are to form the subjects of discussion at future meetings. Such Grange work cannot but be profitable to the community in which it is situated, and could be imitated by other Granges with much benefit.

THE WAR ON RAILROADS BY THE P. OF H.—A certain Grange, thirty miles from New York City, recently attempted to procure a reduction in the price of railroad tickets, the round fare being \$1.80. Last week its purpose was accomplished—the road offering to sell five hundred tickets for five hundred dollars, which offer was promptly accepted, the operation effecting a clear saving of four hundred dollars and nobody hurt. The tickets are good during the current year, but will all be used long before the expiration of the time. This is the kind of war Patrons are making on railroads. The road in question seems to like it, and is likely to have more of it.—*Rural Carolinian*.

NOTES FOR THE MONTH.

JANUARY.

This month received its name from *Janus*, whom the Romans recognized, at one time, as a king of ancient days; at another, as a hero; at another, again, as a God of nature. On the first day of this month, an offering, consisting of wines and fruits was presented to Janus, and on the same day, the image of the God was crowned with laurels, the consul ascended in solemn procession to the capitol, and friends made presents to one another. As a God of nature, too, he was represented as holding a key, and presiding over gates, and openings: and as opening the course of the year in the heavens, and every gate upon earth; even those of private dwellings, being supposed to be under his superintending care. On New Year's day, which was the principle festival of the God, people took care that all they said and did was pure and favorable, and ominous for the occurrences of the whole year—an example worthy of imitation by the denizens of this nineteenth century. And why should not this be applicable to the farmers also of the present era? On this day, let him commence his operations aright, and lay his plans wisely for the year. Let him reflect what is to be done by him for the next twelve months, and how it should be done; what his resources are, and how they are to be applied. Let him put aside complaints and repinings; let him understand his difficulties, and lay his plans to overcome them, not overestimating or undervaluing what labors lie before him, but fully comprehending what perseverance and labor and energy will accomplish.

PLANS FOR THE YEAR.

Let the farmer then, thoughtfully, deliberately and wisely, lay his plans in this month for the year. The garment, of course, must be cut according to the cloth; but as far as in him lies, let him endeavor to improve his lands, both by proper culture, the application of all the putrescent manure he can obtain, and the use of such other fertilizers as his means will admit, and as experience has proved, will pay on lands similar to his own. Let him mark the effects of all the fertilizers he uses, leaving out portions of land where none are applied, to compare with that where fertilizers are used, so that he may go to work intelligently for

another year. Ashes must all be saved and applied—so of all the hen house manures to be obtained; these two last to be composted with rich dirt, and gypsum. Indeed, all putrescent manures should be composted where materials can be gotten together without too much cost. Our Northern neighbors talk much of "swamp muck" for composting. Our Southern farmers know little of its use, or the mode of obtaining it. If obtainable it should be hauled out during the dry weather of the summer and fall, and suffered to dry in a measure, if wet, before composting.

Soap suds, and everything that will promote growth of vegetation, must be carefully saved. The soap suds must be put on composts heaps, or applied directly to the roots of fruit trees or grape vines.

HAULING OUT MANURE

Must be done whenever in this month the ground is dry enough, and particularly when frozen. When frozen, top-dress wheat and winter oats, and rye and clover, and grasses. Do not credit the opinion of some not being wise farmers, that hauling out putrescent manures will not pay, for if they do not pay, no fertilizers in our opinion will. For gross feeding plants, and in winter, it is not so important that manures have fermented and decomposed much. For vegetables, the manure should be piled up, occasionally forked over, and suffered to lay until spring, and then to be lightly turned in with a one-horse plow.

LIMING

May be done in all available weather this month, where the land requires it, and almost all our lands are benefitted by it. All lands not previously sufficiently limed or having enough lime in their composition, or unless greatly deficient in vegetable matter, require lime. The quantity depends on the quantity of vegetable matter on the land, and on the lime already in the soil, and perhaps on other conditions. Lime it is known makes soluble, and available for plant growth, mineral, and other matters found in the soil. As a general rule, 100 bushels is a liberal application to an acre. If the surface to be limed is large, then it will be better to apply 50 bushels, and another year 50 bushels more.

PLOUGHING

Must be pushed forward this month (if not already finished) in all suitable weather. Do not neglect to prepare for the corn crop, an all important crop, we think, for the farmer. The late William Hill Carter, one of the most judicious farmers we have ever had in Virginia, in reply to an article in this journal. "Corn Growing not Profitable," in which the writer states "no one pretends that it pays to grow less than 50 bushels to the acre. and at \$1 per bushel, says, "insure us \$1 per bushel for corn in Virginia, and we can make more money by it, than by any other crop." Mr. Carter speaks of corn as "the bread and meat, the hay or fodder, the manure, the cleaver of land, the bedding for man and beast, the most important thing on a Southern farm," and expresses the opinion that "any farmer in Virginia, who buys western corn, will soon have to move out West."

PREPARATION FOR VEGETABLES.

Manure should be gotten ready for hot beds, which should be put down the last of this month, or first of February for early cabbage and tomatoes. Sticks for peas and beans should be prepared, and the garden cleaned up. Some of our Hanover friends who desire very early garden peas, sow them the first good weather this month, that the land can be worked. Holes for watermelon planting should be opened this month, and one bushel of good, partly rotted stable manure put in them, and the dirt drawn over, to remain until time for planting.

CARE OF STOCK.

Much attention should be paid to stock now. Good feeding and good feed must be provided, so that our animals may come out of the winter in good condition. August pigs farrowed this month must be kept in warm, dry, well littered quarters. If this is done and the sow well fed with washes and corn, the pigs will thrive and make fine hogs by 1st of December. Towards the latter part of the month lambs will be dropped, and they and the ewes will require constant attention. They should be separated from the rest of the flock, have good shelters, and the ewes be well fed, and the lambs in a week or two provided with meal or some good mill-feed in a trough, from which the mothers are excluded; they will then grow off rapidly and be ready for market when prices are high. Cows to calve in the spring must be well fed and sheltered, and mares in foal should be separated from the horses, provided with large roomy quarters, well littered, and be well fed on hay and grain, with occasional feed of mill offal or a peck of carrots or rutabagas twice a day, to keep their bowels in good condition. They may be moderately worked, but not overstrained or driven hard; as foaling time approaches they should be watched and be kept quiet and undisturbed; the shoes should be removed to prevent injuring the colt.

TREE PLANTING

May be done this month in good mild weather, and grape vines be trimmed and tied up. Raspberries may also be set out.

PUTTING TOOLS IN ORDER.

Tools and wagons and harness should be attended to in bad weather this month. Every farmer should keep a small shop and tools that are needed for this purpose. Brass rivets, to be gotten from all hardware stores, are very useful for speedy and secure mending of harness.

DITCHING, GRUBBING AND FENCING,

Must all be tended to on good days this month.

READING.

No progressive farmer, or one who wishes to progress, should neglect agricultural reading. Now is the time to provide good journals and good standard works on farming, and to read them carefully. Do not be afraid of "Book Farming;" the objections to it are all nonsense.

Editorial Department.

ABOUT THE BUREAU OF AGRICULTURE, STATISTICS AND MINES.

It will be observed that we lay great stress elsewhere in this book upon the immediate establishment of a "*Bureau of Agriculture, Statistics and Mines.*" To our mind, we cannot afford to wait a year longer.

Virginia now occupies *but two-ninths* of her original proportions, and hence it is not at all necessary that we should have a multitude of offices of any kind. We want no special "Board of Public Works," nor any special "Board of Immigration." One office, properly conducted, could attend to the whole business. The Bureau above mentioned might, without any confusion, because the subjects are kindred, combine under one general head, public works, agriculture, mines,

immigration and statistics, and it would not be difficult to find men exactly suited to the work. We do not want there, of course, any old political dead-wood; they have had their good time, and ought now to be content to rest on their laurels. *We do want live men*, and the Bureau will be a failure if they are not secured. Chloroform is not the medicine we need, but tonics that will put new life in things, and show the world that Virginia, in the arts of peace, can be no less glorious than in the deeds of war; in few words, that *she is equal to any emergency*.

THE PUBLIC SCHOOL IN ITS RELATIONS TO THE NEGRO.—As “good wine needs no bush,” so we have little to add to the powerful argument of our correspondent “CIVIS” on this subject. It is a business our people have plunged into without considering at all what it involved. We owe, as a State, a great deal of money, and have put up “a poor mouth” so persistently since the war about paying even the interest on it, that our credit (before the war ranking with the best on earth) has sunk so low as to authorize our friends abroad to recommend no further dealings with us where money was concerned. In the face of this appalling state of affairs, we have undertaken a stupendous charity, in the way of negro schools, costing thousands of dollars every year to sustain it, and with nothing gained by it but the burnishing of a cudgel with which to beat our own brains out. We cannot make a white man out of him, and spoil a very good negro. This creature has been studied, in the abstract, by men as able as BURR, NOTT, MORTON and WYMAN, and their conclusions may be summed up in the homely saying that “you can’t make a silk purse out of a sow’s ear.”

THE UNIVERSITY OF VIRGINIA:—SHALL IT GO DOWN?

It is with peculiar pain (giving expression to our feelings as a Virginian), that we hear of Prof. GILDERSLEEVE’S decision to quit the University of Virginia and accept service in the Johns Hopkins University at Baltimore. When we consider the uncomfortable condition of the University, in the matter of its “sinews of war,” we are apprehensive that the early future may witness also the exodus of Prof. MALLETT, and other members of the faculty, whose eminent abilities Virginia cannot afford to lose.

We disclaim utterly all idea of depreciating in the least the merits of the other excellent institutions of learning in the State, but there has attached to the University, through its illustrious founder, and the evidence of rare excellence involved in its diploma, such a *prestige*, that whereas we might be content with “half a loaf” in most other things, we can never consent to any diminution here. If we must have economy, in respect of the demands upon the public purse, and this necessity no man will gainsay, let it not be exerted in the destruction of this chief custodian of the public spirit of Virginia. This spirit gave form and execution to the Revolution, and the nerve latterly to maintain, through a struggle that turned her fields to wastes, and her homes to ashes, the vital principle it proclaimed, that governments derive their just powers “FROM THE CONSENT OF THE GOVERNED.”

As a conservator of this spirit, the utopian contrivance called public schools affords no compensation for the loss or decay of such an institution. They level down, but *never level up*, otherwise Massachusetts, the peculiar home of the public school, would have disdained to scour Southern plantations during the war for

negroes to act as "substitutes" for men unwilling, in the dread arbitrament of the sword, to back their claim by their lives. If this levelling business was really productive of good, this same home of the public school would not have insisted, against Southern protest, upon maintaining the slave-trade by constitutional enactment until 1808, and afterwards deliberately set on foot arrangements to destroy this very property (the sale of which had made their people rich) with no pretense whatever of refunding any portion of the money paid for it. In general, they can hardly be considered wholesome fruits of the system, looking at regions in which time has given it the fullest test, where a faithful officer, public or private, is the exception; where the marriage bond has become so weakened as to be broken on the most trivial pretext; where the birth of children is systematically prevented, and where adulterous "sons of Eli" are elevated to the position of heroes.

It is by no means the least frightful result of the war that, through reconstructed constitutions and other advantages taken of a prostrate people, the pernicious institutions of the North should have found a lodgment here. We cannot, therefore, afford to dispense with *any* lawful means that will prove effective in preventing the spread of their baleful influence.

The children of the University are to be found in every county throughout the State. Let them, before the pressure of necessity causes the transfer of its noble faculty to States more favored in material prosperity, see that their representatives in the Legislature devise some feasible means by which this peculiar Virginia institution may be placed, for all time to come, on a footing unembarrassed for perfect usefulness.

THE DEATH OF MR. CRENSHAW.

Death hath no respect of persons. LEWIS D. CRENSHAW, of the "Haxall Mills," is no more. His name is familiar in every farm house throughout the State, and this news will bring sorrow to them all. He died on Monday, December 27th, after several months of ill-health, aged fifty-nine. The grass will grow green over him, for he loved not himself only.

In a few short months, three of the four men who, for so many years, gave direction to the milling interest of this city, have passed away: ABRAM WARWICK, JAMES DUNLOP, and LEWIS D. CRENSHAW. Only THOMAS W. McCANCE remains, and we pray it may be God's will to spare him yet long to the people in whose hearts he holds so large a place. Few cities have been blest with four such men. Their names are written on every page of our history for the last forty years, and they shine bright with an integrity and honor that knew no shadow. Of large public spirit, and alive to every movement that gave promise of prosperity and dignity to the city, and through it to the commonwealth, the loss of the three who have gone from us hath brought us most heavy hearts. In these days, when old landmarks have been washed away by blood, and the economy of our State is undergoing rearrangement, the absence of their counsel will be sorely felt, and who shall stand in their places! Let us hope that the same Providence which raised up these men will not leave us bereft, but vouchsafe us others, who, encouraged by the example of the departed, will take up their work and crown it with the success they strove, with such singleness of purpose, to accomplish.

VIRGINIA WILL NOT BE AT THE CENTENNIAL.—The refusal of the Legislature to appropriate any money for this purpose, should be hailed with thankfulness in every part of the State. Aside from the manifest impropriety of lending countenance to an act of hypocrisy (see present condition of South Carolina), the people's money should not be wasted any more on a show than in the effort to make white people out of negroes. Besides, no man can be credited with generosity when the only means at his disposal for its exercise is other people's money. Every dollar, above what is needed to conduct the State Administration in the most economical manner, and to render available our resources, both material and in the direction of our public spirit, belongs to the people who have waited these many years to receive their just dues; and this obligation should ever prevent our listening to *anything* that would in the least interfere with our duty in this behalf. When the North shall show, *by its acts*, that it is well disposed towards us in the South, we will not fail to meet the overture with the heartiest response. Until then we have no concern with anything but our own immediate business.

BIOGRAPHICAL SKETCH OF GEN. WM. H. RICHARDSON.

In issuing the first number of THE PLANTER AND FARMER for the present year, we feel that we cannot perform a more pleasing and acceptable office than that of accompanying it with an accurate likeness and a biographical sketch of Gen. WM. H. RICHARDSON, whose venerable form and strongly marked features are familiar to thousands of the people of Virginia. Happy are we in being able to say that a character so pure, and a life so useful, are yet spared to us. Although he has passed those limits allotted by the Psalmist as the duration of human life; and although he has borne more than the ordinary share of the labors and vicissitudes incident to human life, we may say of him what is said of the Jewish leader—"His eye was not dim nor his natural force abated."

For able and faithful service through a long series of years, in the several public stations he has filled, the people of Virginia owe him a debt of gratitude;—but for his energetic, persevering and well directed efforts in the cause of Virginia agriculture, their obligations to him are still greater. At all events, we feel that in thus presenting him to our readers, and in thus marking our appreciation of a character unsullied by vice, a name untarnished by defamation, and a life devoted to useful labors, we are performing a simple duty, and one that will be acceptable to all classes of Virginians, more especially to those constituting the large, intelligent and respectable agricultural class.

WM. H. RICHARDSON was born in the city of Richmond, on the 18th of December, 1795. His father, Maj. George Richardson, was an officer in the war of the Revolution. His mother, Francis Bacon Whitelocke, was descended on the mother's side, from Nathaniel Bacon, the famous rebel of colonial times. She lived until April, 1861, and at the time of her death was in her ninety-first year. His first participation in public affairs was at an interesting and exciting period in the history of the country. This was in the year 1813, the second year of what, no matter how many wars we may have, will, perhaps, always be known as "The Last War." When the British fleet occupied the waters of Virginia, there was a great stir among the people of the State. The martial ardor and patriotic impulses of both old and young, were quickened into action. The Richmond troops were ordered to Norfolk, and the subject of this sketch, then a youth, volunteered for the service. The company to which he attached himself was one of the

finest companies in the service. Three months afterwards, and on the return of this company to Richmond, he was elected its first lieutenant, and soon afterwards succeeded to the command of it. At the close of the war, and after having declined promotion more than once, he resigned. His natural military taste was stimulated and nourished by the scenes through which he had passed, and has clung to him through all the peaceful and laborious business of his life. To have served in "The Last War," has ever in Virginia been regarded as a high mark of merit and patriotism, and in many instances has been rewarded with public station. To this cause, in part, at least, may be attributed his unanimous election, in the year 1821, to the office of Clerk of the Council of State, a position of trust and confidence, in which had been merged the duties of Secretary of State, under the constitution of 1776.

The Council of State was one of the old institutions of Virginia, inherited from colonial times. It was composed of nine of the most prominent and trusted citizens of the Commonwealth; and to be chosen a member of that body, was reckoned a high honor. Modern innovation has swept it from existence, but many of our comparatively young citizens remember when it existed.

Upon the creation in 1832-33, of the office of Secretary of the Commonwealth, Captain (for such was then his title) RICHARDSON, was unanimously elected to it, by the Legislature.

At the session of the Legislature of 1827-28, without any solicitation on his part, and even against his wishes, he was made ex-officio State Librarian, when indeed, there was no State library. This library had to be formed. To select, purchase and arrange the books was an arduous undertaking, involving as much of taste and literary, scientific and historical knowledge, as of labor. It is true that the Librarian had the assistance and co-operation of a committee of the State Council, especially appointed for that purpose, but it is not assuming too much for him, to say that upon him chiefly devolved the delicate task of selecting, while the burdens of purchasing, collecting and arranging these books fell exclusively upon him. Under his auspices the admirable Library of Virginia was built up. It was a rare, valuable and happily chosen collection of books, being confessedly the finest library, of its extent, in the United States. So successfully was this institution conducted by the Secretary of the Commonwealth and ex-officio Librarian, that his administration of it drew from the Legislature frequent expressions of its approbation.

In 1841, Captain RICHARDSON was appointed Adjutant General of the State, and to that hitherto neglected department he imparted his characteristic vigor and energy. This continued until the act of the Legislature of 1853, which broke down the military force of the State. Under Kemper's bill, passed March, 1858, he rapidly and thoroughly organized the military forces of the State so that within less than eighteen months, 143,000 militia had been enrolled and organized, as appears by the annual report of 1860. At the time of the secession, or rather attempted secession of Virginia, she had twenty thousand volunteers uniformed and armed. By virtue of his office of Adjutant General, General RICHARDSON was a visitor of the Military Institute, and so high an estimate did the society of the Alumni place upon his services, that they caused his portrait to be painted by a distinguished artist, and presented it to the Institute.

At length, after a faithful and laborious service of thirty years in these several positions, and when party feeling had grown intolerant, leading to proscription on account of political opinions; and when the Democratic party was greatly in

the ascendant, General RICHARDSON, an old line Whig, in was the year 1852, ejected from office, or to speak more correctly, failed of re-election before the Legislature. Detesting the arts of the demagogue, a stranger to convivial scenes, and with manners too independent, if not stern, to conciliate favor, General RICHARDSON owed his elevation entirely to his sterling worth, and his unquestioned business qualifications and habits. He left office as he entered it, with clean hands, a clear conscience, and an empty purse.

The chief design of this sketch, however, is to present him in connection with the subject of agriculture—a subject more congenial to his, as it is to our taste, and one in which he has signally illustrated his own usefulness, as well as the eminent capabilities of his State.

During his official incumbency, and notwithstanding his numerous and onerous duties, he so managed his affairs as to be able to devote a portion of his time and attention to agriculture. So true is it that he who systematizes his labors, and economizes his time, no matter how exacting the demands of his business, will be able to command leisure to devote to a favorite pursuit. It was this methodical turn of mind that enabled the great Bacon in the midst of his absorbing legal and political occupations, and while conducting numerous intrigues for place, power and wealth, to devote a portion of his time to science and philosophy—to write essays on gardening, and to prepare that enduring monument of his learning and genius, the *Novum Organum*.

In the year 1841, we find General RICHARDSON the proprietor and occupant of a farm in the vicinity of Richmond. It was then that he devised and prepared a plan for the organization of an Agricultural and Horticultural Society. It was chiefly through his active instrumentality that it was carried into successful operation. For several years he was an efficient member of the Executive Committee, and succeeded the Rev. Jessee H. Turner as President. That eccentric but useful man, known to old and young as "Parson Turner," was one of the most untiring and successful agriculturists of his day. Plain, honest, sensible, and well informed, he did as much to stimulate agricultural improvement as any man in Virginia, at that period. The exhibitions of this Society were successful. After service of one or two years, as its President, General RICHARDSON resigned, and about 1846 the Society went down. On referring to the published accounts of its transactions, we find that its most important committee, that "on farms," was composed of Wm. H. RICHARDSON, Chairman, Francis Staples and Warner W. Guy. A report drawn by the chairman was received with the warmest demonstrations of approbation, being copied from the *Southern Planter* into many Northern agricultural journals. The venerable Thomas Ritchie, the founder and editor of the *Richmond Enquirer*, and a member of this Society, was so much pleased with this report that he published it in full in his newspaper. This report called attention to a class of laborers "hitherto overlooked"—"the men who guide their own ploughs, drive their own produce to market, and in time of danger, shoulder their muskets and take the field." It quotes from a distinguished prose writer, who remarked of the people of a great commercial city of the North, "that there the lawyer looks down upon the merchant, the merchant upon the grocer, the grocer upon the green grocer, and the green grocer upon the apple woman, who don't care a straw about any of them"—and adds—"We trust it is not so among us—but these sturdy citizens of ours, who have as much sterling merit and independence of character as any men on earth, who regard with indifference or contempt the trappings of wealth and station and ask

no favor but of the Almighty, have been left to drudge on, generation after generation, without any effort to improve or to aid their agricultural labors." The report thus concludes:—"Give our people the lights of practical knowledge, improve our system of education, our agriculture and our mechanic arts, and our old dominion will be once more in the ascendant"—every word of which deserves to be written in letters of gold.

As late even as the period at which this report appeared, October 1841, agriculture in Virginia was in a low state. The slow and slovenly old modes of culture, were unquickened by enterprise, and unresponsive to the impulses that had vitalized, improved and expanded agriculture in other less favored sections. Virginia had not been without successful farmers, here and there, who availed themselves of all the aids of science, and adopted all the modern improvements. But to the agricultural masses of the State, science was a sealed volume. New ideas were unwelcome, and were even condemned and derided as foolish vagaries. There had been several distinguished agricultural theorists and writers. The celebrated John Taylor, of Caroline, and the scarcely less distinguished James M. Garnett, of Essex, had written books and essays on the subject. They did not, however, reach the masses, and were unproductive of general results. The truth is, that to these speculative minds, agriculture was rather a diversion than a business. It afforded recreation to their active and ingenious faculties, and constituted a field in which the leisure left by political occupations, could be pleasantly employed. They were like Athletes, who practiced their strength and activities as a pastime. The late Edmund Ruffin was then prominent as a farmer, and subsequently became the most conspicuous agriculturist in the United States. He was not simply a theorist. He was both practical and scientific, and his essays on agricultural subjects are among the most valuable contributions that this age has produced.

General RICHARDSON was not an agricultural theorist or writer. He has not, like those first named, published a book; nor like the last named, Mr. Ruffin, can he point to a model farm, but it will not be going too far to assert that he did more for Virginia agriculture than all that have been, or can be named. He did what they could not do. He organized all the influences that they severally originated, and carried them among the people. He went from county to county, from neighborhood to neighborhood, as the apostle of agriculture, and placed himself in contact with the people. How he came to this, and how effectually it was accomplished, we will now proceed to show.

The spirit of agricultural improvement was abroad in Virginia. What it wanted was organization, embodiment and direction. It was struggling and panting for the realization of its noble aspirations. Against ignorance, prejudice and, worse than all, indolence, it soon commenced a contest, and sought the succor of organization and association, those indispensable aids to all great and valuable enterprises.

In January, 1845, by means of strenuous exertions in which General RICHARDSON actively participated, a State Agricultural Convention was held in the State Capitol. It was a highly respectable body, in numbers and in character. It organized a society, appointed officers, and passed resolutions asking the aid of the Legislature. Whether from reasons of State policy, or from indifference, we cannot now undertake to say, the aid thus solicited, was not accorded by that body. Of the society thus formed, the late venerable Edmund Ruffin was elected President. Although the acknowledged head of the farming interests of Vir-

ginia, and a most zealous agriculturist, he for some reason not known to us declined the office. Andrew Stevenson, who had been speaker of the House of Representatives of the United States, and Minister to the Court of St. James, was chosen in his place. Although a zealous and skilful farmer, the administration of Mr. Stevenson was by no means a success. The enthusiasm manifested at the first meeting soon subsided, the Society languished, and by the end of the year it had only a nominal existence. In the year following the organization of the Society a few members assembled and continued to hold cold and feeble meetings until the 18th of February, 1852, when another convention met, but smaller in numerical force than that of 1845. The two fragments united, and Mr. Ruffin was again elected President. The number of members was three hundred and thirty-nine, and the amount of funds collected was \$268. Mr. Ruffin's administration was directed mainly to the dissemination of practical agricultural knowledge, as in his opinion the necessary condition precedent to the successful advance of agricultural improvement; and, as a consequence, the pages of the Society's transactions were enriched with many valuable essays, principally from his pen, but in other respects it was as barren of results as that of his predecessor. At the ensuing annual meeting he resigned, and the office was conferred upon Colonel, subsequently General Philip St. George Cocke. Almost contemporaneously with this, the motion of General RICHARDSON from the office of Secretary of the Commonwealth occurred. Relieved from the trammels of office, he was now, fortunately for the agricultural interests of his beloved State, in a position to dedicate his time, energy and talents to the advancement of those interests. Between himself and Colonel Cocke a warm friendship existed, and they had frequently conversed together upon the subject of the failures of the Society, and the causes of those failures. They both concurred in the opinion that the cause to which they were chiefly referable was the difficulty of finding a suitable person to canvass the State. No sooner was Colonel Cocke apprised of his election to the presidency of the Society, than he bethought him of General RICHARDSON, and at once urged upon his acceptance the position of Commissioner or General Agent, with the authority to appoint sub-agents, to canvass the whole State. To ensure General RICHARDSON's acceptance of this position, the most liberal pecuniary offers were made to him by Colonel Cocke, which he declined, but he accepted the position and immediately entered upon the canvass, associating with him his son, Wm. H. Richardson, Jr., Esq.

To procure the services of a commissioner, was an easy matter. There were then, as there are now, many persons who would have esteemed it an honor and a privilege to represent the imposing agricultural community in that character; but to get a suitable person—a man of talents, of character, of social standing, of untiring activity, and who had the cause of agriculture warmly at heart, was, and up to this time had been the difficulty. In General RICHARDSON was presented the right man in the right place. Known and respected throughout the State, on terms of intimacy with many, and acquainted with nearly all of the prominent men in every quarter of it, he was of all men the particular man for the occasion.

As was well said by a newspaper of that day, "This was the master stroke which gave vitality to an institution that had hitherto dragged out a sleepy and precarious existence." General RICHARDSON engaged in this work with his accustomed energy. A copy of the *Rockingham Register* of that day says: "He

visited the people at their court-houses, the farmer at his plough, the mechanic at his shop, the manufacturer at his loom, and from February to November he was busily engaged in traversing the State, and promoting by all possible means the interests of the Society. He was everywhere received with cordiality and kindness, and excited among the people an enthusiasm that was really extraordinary." The newspapers caught the enthusiasm. They assisted in promoting the good work, and lavished encomiums upon General RICHARDSON for his public spirit, energy, and unparalleled success. It may here be mentioned that, owing chiefly to his extraordinary efforts within the first nine months of Col. Cocke's presidency, the members of the Society increased from *three hundred and thirty-nine* (many of them men of straw) to five or six thousand; the capital from \$268 to \$40,000! and through subsequent accretion now amounts to \$60,000!!*

The object was to build up a State Society, and in the approaching fall to hold a Fair on a scale of magnitude and completeness never before known in the South—an industrial exhibition in which not only agriculture, but all of the mechanic arts should be represented. These were the instrumentalities by which it was contemplated to construct an enlightened and general system of agriculture. As General RICHARDSON progressed in his travels, he corresponded with various newspapers, encouraging the people by stating the incidents and results of his efforts, and by picturing the prospects for the contemplated Fair. Our space does not admit of the reproduction of these interesting letters. We cannot refrain, however, from extracting from the *Lynchburg Virginian* some passages from a letter to his son, who was operating from Lynchburg to the Southwest and across into the Alleghany region: "There is plenty of fine stock," wrote he, "within convenient access to Richmond; but that is not all, or nearly all, that we must bring out. The industrial products of the State, which lie almost concealed in holes and corners, and are beyond anything I had conceived, and many of them of surpassing excellence. I have been searching them out everywhere, and have 'compassed sea and land' to get them to the Fair. If all come who are pledged to me, we shall be overflowed; but we had better have ten stall-pens or compartments too few than one too many. Plows of all kinds, harrows, threshing and cleaning machines, drills for small grain, with or without plaister or guano, [attachments] a simple but most effective machine for cleaning seed wheat, woolen fabrics of surpassing excellence, from negro blankets to fine carpeting, are among the productions of this region. All these, with red free-stone dressed for front-steps and side ornaments, I have engaged to be forthcoming. * * * The Society is seeking to promote, and will promote to not one only, but all the great interests of the State. Its cause, therefore, is the cause of every working man, whether he tills the soil or plies the saw and hammer, the spinning jenny and the loom. * * * Stimulate producers of every kind to be present at Richmond with specimens of their productions, be they what they may."

In a letter to the *Richmond Dispatch*, General RICHARDSON said: "My efforts are now mainly directed to getting farm stock, agricultural implements, manufactures, specimens of all our industrial as well as agricultural productions to the Fair, AND GETTING THE PEOPLE THERE. I saw long ago that without such exertions the Fair would be nothing—it *will not grow of itself*, but must be worked for, and that pretty hard. * * If I am not mistaken about the *cattle show*, that

*The first presidential term of Mr. Ruffin was of only ten months duration. He declined a reelection at that time on account of physical infirmity. He was subsequently elected annually for three years successively, fulfilling the constitutional term, and realizing the highest expectations of his friends.

will be the crowning stone of the edifice. The masses must have something visible and tangible. * * The annual assembly of so many farmers and working men of so much intelligence and industry must have an important influence upon the great interests of the State."

These extracts show the ardor, as well as the enlightened and comprehensive views which inspired the State Commissioner's unflagging efforts.

The result realized his most sanguine expectations. A more signal success never crowned and rewarded industrious and disinterested efforts. That Fair exhibited an august spectacle—a great and imposing assemblage of the worth, intelligence, wealth and enterprise of the whole State. At no period of her history, perhaps, before or since, has there been witnessed such an assemblage of the gentry of Virginia. It appeared that by common consent a suspension of politics, business and pleasure was determined upon, in honor of this occasion. Nor were the graces of female loveliness wanting to complete its attractions. The ladies thronged to this city from all portions of the State, and such an array of beauty had never been seen in the Old Dominion—the result of which was that matrimony, as well as agriculture, received a powerful stimulus. The exhibition itself surpassed all expectation, in the display of stock, cattle and agricultural, horticultural and mechanical productions. The whole State was delightfully startled at the unhopd for evidences of its own skill, industry and wealth. A season was now inaugurated when agricultural ideas, improvements and enterprises expelled all other ideas and thoughts from the public mind. It may almost be said that agriculture became the point of honor with our people.

The progress made in this State, in the study and practice of agriculture, as a science, dates from this epoch.

The man who bore the chief part in this good work was WILLIAM H. RICHARDSON! A tribute more valuable than any we can render him, was paid him by President Cocke in his report to the society at its second meeting, October 31, 1854. From this report we present the following extracts :

"I have another duty to perform. It is to render to a late valuable, devoted and most efficient officer of this Society that full measure of praise due to him for the part he bore a year ago in building up your society, from the agency he had in the successful accomplishment of what had, for forty years before, been in vain attempted to be realized. My official position enabled me to know better than any one else could know, the duties and labors performed by each officer of the executive department of the Society; in fact, the operations of your Commissioner or General Agent, were scarcely known at all to any other member of the Executive Committee than myself, and it has happened that whilst others have received the credit and honor due on account of their meritorious conduct, he whose effective and devoted labors rank second to those of no other officer in the Executive Department of the Society, yet remain to be made known, at least to many members of your honorable body. And, as "it is never too late to do right," I shall here "speak out that I do know." I can assert, without fear of contradiction, that in consequence of the ability and untiring zeal with which the agency was conducted, it proved to be one of the main levers by means of which was imparted the first successful movement to the whole machinery of the society.

"It has been thought and said by some that the General Agent was fully paid for his services, by commissions received on money collected. This I know to be as mistaken as it is an unjust view of the matter; and I can confidently state that that officer lost more by the neglect of his private business than he received whilst laboring for the Society. Besides, THE LABORS OF SUCH A MAN IN SUCH A CAUSE, AND IN THE NOBLE SPIRIT WHICH ANIMATED HIM CANNOT BE MEASURED OR REPAID BY MONEY. I happen too to know that whilst all others who served the Society, had each some ample means of support, and experienced no material sacrifice of their private affairs, it was he alone, who, throwing himself generously into the work, gave up for the time almost everything else, whilst canvassing a large portion of the State, aided by Wm. H. Richardson, Jr., at great cost of time and labor, making widely known the purposes and objects of the Society, enlisting members and life members, securing stock and articles for exhibition, obtaining the aid of the newspaper press, conciliating the railroad and other transportation companies, spreading his correspondence too, over the whole State, through an acquaintance as wide as it was influential, and never tiring in these efforts, even to the last. And I can say that these efforts formed a most essential part of the system of executive operations, which caused your first exhibition to result in a triumph which led to your first great annual meeting."

The eminent agriculturist who thus bore his disinterested testimony to the

valuable services of General RICHARDSON, now sleeps beneath the sod. Among the many titles to the respect of his fellow citizens, none was more prominent than that founded upon his services in the cause of agriculture.

From the period to which we have traced him, up to the commencement of the war, General RICHARDSON continued to take a lively interest and active part in all agricultural movements. We should not omit to mention here, that he materially aided in organizing the Petersburg and North Carolina Society in 1854, believing that every such society was a pillar of support to the whole system. War, that formidable enemy of all the forms of peaceful industry, that jealous tyrant that claims supreme and exclusive allegiance, arrested the onward march of agricultural improvement, and returning peace has, thus far, brought no amendment, its first result being the subversion of the labor system of the whole South. Chaos now reigns supreme over this fruitful region, but we hope we see indications of the dawning of a better day, when a new labor system will be organized, and when the seeds sown in that happy era, before the war, will produce an abundant harvest. The spirit of improvement then awakened, was not extinguished, but simply suspended by the war.

During the continuance of the war, General RICHARDSON devoted himself to his arduous duties as Adjutant General of the State, and at no period of his life and in no position in which he has been placed, did he evince greater ability, perform more onerous labors or achieve greater results, than in that.

No sooner did the chaos that sprung from the war begin to assume form and organization, than we find this zealous agriculturist again turning his attention to his favorite subject. Like the dove, after the subsidence of the waters, appeared the bearer of the olive leaf. The *Richmond Whig* of October the 4th contains a letter from General RICHARDSON, urging the establishment of a first-class agricultural journal in this city. In the same article he argues against the division and sale of the large landed estates of Virginia, and recommends the adoption of measures for settling them with an English or Scotch tenantry. With a view to this, he warmly advocates the encouragement of emigration by Legislative measures as well as by individual enterprise. The Legislature of 1865-'66 passed an act creating a State Board of Emigration with authority to appoint a commissioner, which office was tendered to, and accepted by, General R., who conducted a laborious and extensive correspondence, both foreign and domestic, until the act was superseded by another passed during the session of '73-'74.

A NEW BOOK ON THE SCIENCE OF AGRICULTURE.

Messrs. A. S. Barnes & Co., New York, have sent us a copy of a work they have just published, entitled "*a Text Book of Scientific Agriculture; with Practical Deductions*," by E. M. Pendleton, M. D., Professor of Agriculture and Horticulture, University of Georgia. Price, \$2.50 postpaid. As far as we have been able to examine the book, we find the Doctor has availed himself of all the trustworthy sources of information, at home and abroad, and that the material has been arranged with singular compactness and simplicity, enabling the reader to refer to any point discussed with the greatest ease. The work was prepared to meet the want existing in the Southern country for something divested of technicalities; something indeed that would prove valuable to the unscientific reader.

THE January "Galaxy" will contain the first part of a new serial story by Wm. Black, author of "A Princess of Thule," "Strange Adventures of a Phæton,"

etc., etc. It is called "Madcap Violet." The same number will also contain a very important article on our National Surveys, by Capt. Chas. W. Raymond, and the English Interregnum," by Justin McCarthy. Articles by Prof. H. H. Boyesen and Albert Rhodes will also be found in the same number.

THE attention of horsemen, teamsters, cattle breeders, and graziers, dairy-men, poultry, and dog fanciers, &c., is directed to this food. It is a spicy condiment, possessing many virtues, and has had unusual success wherever used. It is put up in a cheap portable form of 30 pound boxes 100 packages, and the merciful man can be merciful to his beast at a very cheap rate, and make it pay besides.

HOME CORN SHELLER.—We call attention to the advertisement of this sheller, we have one in use and find it a cheap and handy instrument. The "*American Agriculturist*" highly recommends it.

MR. J. R. MINTER, of Unionville, South Carolina, has some IMPROVED COTTON SEED for sale. Any one desiring to improve their cotton would do well to communicate with him in regard to the matter. At the late Union county fair Mr. Minter received the premium for the largest yield of cotton on one acre (3,000 pounds picked), also for the largest yield on five acres (12,080 pounds). Our next number will contain an article from him on the cultivation of this staple.

We will publish in our forthcoming numbers the following prize essays given by the State Agricultural Society at its last meeting: "Sheep Husbandry," by Frank H. Gayford; "Manures," by Frank H. Gayford; "Grasses," by Geo. T. Tayloe; "Experiments with Fertilizers," by Dr. Robert Harrison, of King George.

The improvement in the general tone of the *Planter and Farmer*, as shown by this No. has involved an expense that will render it impossible for us to continue this improvement with the subscription price at a figure as low as \$1.50 per annum. We have carefully examined the matter in all of its details, and find that it cannot be compassed for less than \$2, at which price this Journal will hereafter be furnished. To clubs of FIVE subscribers, \$1.75. To clubs of TEN OR MORE, \$1.60, each.

The aggregate number of pages for the year will be over 700; and this considered in comparison with the cost of the same number in any other publication, will show that the margin left over the expense of paper and printing, is *extremely reasonable*.

It shall be our aim to submit, from month to month, a journal worthy of the Southern Country; and we claim, at the hands of our friends who have the interests of these States at heart, their assistance in sustaining, by personal good offices, our efforts in this behalf, and beg that you will give us the benefit of a good word in your neighborhood. The larger we can make our subscription list, the greater addition of valuable material we can put into our journal. We propose to present not only the experience of our own people, but a general summary of agricultural progress elsewhere in this country and in Europe.

We shall deal with all questions bearing upon the interests of our people *without fear or favor*. Our condition demands the very best at the hands of every one of us; and there is nothing to show that these efforts will be in vain.

L. R. DICKINSON.

Market Garden for Sale.

A market garden of 10½ ACRES of VALUABLE LAND for sale in Rocketts, 500 yards from corporation limits of Richmond. Has a

Two-Story House, with Good Outhouses.

LAND VERY RICH.

PRICE, \$4,000.

Address,

T. L. P.,

Care "Southern Planter and Farmer," Richmond, Va.



THE
VIRGINIA
WINE

AND

CIDER MILL

Is superior to any MILL now made, and more sold annually in this market than of all other kinds combined. It does not grate, but thoroughly crushes every fruit cell, insuring all cider the apples will yield.

Send for Catalogue.

jy-1y

CHAS. T. PALMER,
1526 Main Street, Richmond, Va.

G. F. WATSON'S FURNITURE WORKS, RICHMOND.

Having timber tracts in this State sufficient to last several years, with a complete lumbering rafting, and saw-mill organization of fifty men, together with one of the most complete factories in the country located in this city, can furnish Poplar and hard wood (no soft pine) low-priced FURNITURE as cheap as any factory North or West—and fine Walnut FURNITURE cheaper. A stock of one million feet of lumber insures seasoned work, warranted in this and every respect. Manufacture MATTRESSES of all kinds.

Lumber-mill, Indiantown, Va.; Factory, Rocketts street; lumber-yards, Ash and Poplar streets; warerooms, No. 18 Governor (Thirteenth streets,) Richmond.

STOCK FOR SALE.

Constantly on hand, Short-horn

BULLS, COWS, AND CALVES,

of the most approved strains. The pure Bates Bull,

FIDGET'S OXFORD 12th


at the head of the herd.

BERKSHIRE PIGS

from sows either imported or bred direct from imported sire and dam. The recently

Imported Boar "AYLESBURY CHIEF,"

at the head of the herd. Prices low. Send for Catalogue.

 Fine Bronze Turkeys, at \$6 per pair.

A. M. BOWMAN,

Dec—6m

Waynesboro, Augusta county, Va.



GORDON'S FOOD

FOR

HORSES & CATTLE.

THE GREAT ECONOMICAL FOOD FOR STOCK.

Reduces the cost of feeding, both for cattle and horses, one-fourth. Being a perfectly nutritious, health-giving preparation from the seeds of grasses and herbs, in combination with tonic and invigorating root barks, we claim it to be the one thing needful to make a perfect feed. Horses are improved in FLESH, WIND and ENDURANCE. The principle of the action of the food is that PERFECT DIGESTION produces PURE BLOOD, and upon this depends HEALTH, and often life itself. Cattle intended for the knife fatten more rapidly, and the flesh is more solid. Cows increase their milk yield at least one-fourth in both richness and quantity, the final result being much more butter.

GERALD GORDON & CO., Patentees and Proprietors.

New York, Philadelphia and Baltimore.

SIMPSON, BASS & CO., State Agents, 1327 and 1331 Cary st., Richmond, Va.

nov—

1875. WHOLESALE and RETAIL. 1876.

500,000 FRUIT TREES.

Our stock of Fruit and Nut Trees, Grape Vines, Small Fruits, Etc., is large and fine.

THE ORNAMENTAL DEPARTMENT

is filled with Beautiful Evergreens and Deciduous Trees, Shrubs and Roses, and

THE GREEN-HOUSE DEPARTMENT

contains everything desirable for the Conservatory and Flower Garden.

Prices low, packing well done. Catalogue full.

M. COLE & CO.

CAMPBELL WALLACE.

MOSES COLE.

ATLANTA NURSERIES, Atlanta, Georgia.

Dec—2m

SOLUBLE PACIFIC GUANO,

FOR TOBACCO, CORN AND OTHER CROPS.

After ten years' continuous use, throughout Virginia and the South, Soluble Pacific Guano has acquired a reputation for reliability equal to that formerly enjoyed by the Peruvian Guano, and the quantity used annually exceeds that of any other fertilizer.

It has been the aim of all connected with this Guano to produce the best possible fertilizer at the lowest possible cost, and we claim that the unusual resources and facilities of the manufacturers have enabled them to approach this more nearly than has been done in any other fertilizer with which we are acquainted. Those who have been using it unite with us in the opinion, that by its use the consumer gets

THE GREATEST BENEFIT FROM THE SMALLEST OUTLAY.

We offer it with great confidence for use on the Tobacco and other crops to be grown in 1875, with the assurance that it is, in all respects, equal to what it has been in the past.

PURE PERUVIAN GUANO,

AS IMPORTED.

We have a full supply of **No. 1 Guanape Peruvian Guano**, from the Government Agent in New York, selected from one of the finest cargoes ever imported. It is dry and in beautiful order, and contains within a fraction of **13 per cent. of Ammonia**, which is within two per cent. of what the old Chincha Peruvian used to contain—in fact, it would be difficult to tell one from the other.

We offer these standard and thoroughly tested fertilizers for Tobacco, Corn, and all Spring Crops, and are prepared to sell them at such prices as will make it to the interest of consumers and dealers to purchase their supplies of us instead of sending their orders to New York, or elsewhere.

For further information and supplies, address,

ALLISON & ADDISON,
Seed and Guano Merchants, Richmond, Va

mar—tf

ST. JAMES HOTEL,

RICHMOND, VA.

Pleasantly located on Twelfth Street, facing Bank Street and the Capitol Square. In the centre of the business portion of the city, within one square of the Post Office and Custom House, it is, by its retired location opposite the southeast corner of the beautiful park surrounding the Capitol of Virginia, the most quiet hotel in Richmond.

The proprietor having had a life long experience in hotel business—first at the Everett House, New York, and afterwards as proprietor of the Spotswood Hotel, Richmond, in its best days—and now assisted by Mr. JOHN P. BALLARD, the popular veteran hotel-keeper of Virginia, assures visitors of the ST. JAMES that no effort on his part will be spared to make them comfortable and to keep the house in first-class style. Coaches will attend the arrival of all trains. Elegant carriages are at all times at the service of the traveling public.

june

T. W. HOENNIGER, Proprietor.

FALL STYLES, 1874.

CHARLOTTESVILLE WOOLEN MILLS

SAMPLE CARDS

Are now ready for mailing. Our assortment embraces

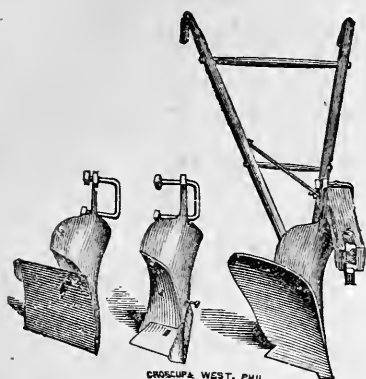
TWENTY-FOUR PATTERNS.

Merchants desiring samples, will please address,

CHARLOTTESVILLE WOOLEN MILLS,
CHARLOTTESVILLE, VA

THE WATT PLOW

VICTORIOUS ON EVERY FIELD!



CROSCUP, WEST, PHIL.

A combined TURNING PLOW, CULTIVATOR, SUBSOILER, ROW-OPENER, PEANUT-DIGGER, TOBACCO and COTTON SCRAPER and SWEEP.

No CHOKING when bright and smooth; no LABOR to the plowman; ONE-THIRD LESS DRAUGHT to the team; thorough BURIAL of Weeds, Grass, &c.; great STRENGTH, Durability and Economy in its use, and complete pulverization of the soil.

FARMERS WHO USE IT WILL USE NO OTHER.

Awarded all the Premiums at every Fair attended in 1873.

Awarded First Premiums at every Fair attended in 1874.

Virginia State Fair, Richmond—FIRST PREMIUMS ON THREE AND FOUR-HORSE PLOWS.

Right and Left Hand—ALL PREMIUMS AWARDED THEIR SIZES.

Also at the Plowing Match ALL PREMIUMS AWARDED WHITE PLOWMEN were taken with WATT PLOWS of ONE, TWO, THREE and FOUR-HORSE SIZES; and COLORED PLOWMAN by ONE, TWO and THREE-HORSE SIZES; being

SEVEN PREMIUMS OUT OF EIGHT.

The superior work done by the WATT, and the complete ease with which it is handled, was apparent to all.

NORTH CAROLINA STATE FAIR, Raleigh, October 10th;

GEORGIA STATE FAIR, Atlanta, October 19th;

SOUTH CAROLINA STATE FAIR, Columbia, November 10th;

STAUNTON, VA., October 13th;

LYNCHBURG, October 20th;

WELDON, N. C., October 20th;

ORANGEBURG, S. C., November 3rd;

CHARLOTTE, N. C., November 3rd;

DANVILLE, VA., November 3rd;

POINT PLEASANT, W. VA., October.

Thus, with its great reputation before, it has gained new laurels this year, which must convince every farmer of its vast superiority over other plows.

We warrant every plow sold to be as represented or to be returned to us. We solicit a trial. Catalogues sent to any address.

WATT & CALL,

SOLE MANUFACTURERS,

1452 Franklin St., Richmond, Va.

Special Agents for "The Best" Spring-Tooth Horse-Rake and Gleaner; also for sale of our own manufacture, HARROWS, CULTIVATORS, and all kinds of IMPLEMENTS at lowest prices—all warranted.



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SEWING
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Liberal terms of Exchange
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"DOMESTIC" PAPER FASHIONS.

The Best Patterns made. Send 5 cts. for Catalogue.

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AGENTS WANTED. NEW YORK.

500,000 GRAPE-VINES FOR SALE.

CHEAPER than any where else.

Concord—1 year, \$30 per 1,000; 2 years, and extra select 1 year, \$45 to \$55 per 1,000. No one dare undersell me.

Delaware, Martha, Iona, Diana, Eumelau, Norton, Heribmont, Catawba, Croton, Hartford, and all other varieties cheaper than anywhere. Also all small Fruit Plants. Address Dr. H. Schroder
Bloomington, Ills.

Dec—2t

ALBEMARLE NURSERIES,

Near Greenwood Depot, C. & O. R. R., Va.

October 13th, 1875.

TO THE PUBLIC:

In estimation of the constantly increasing interest manifested in the culture of fruits in Virginia, I desire for a mutual benefit to extend and make more widely known my occupation and facilities to supply **RELIABLE FRUIT STOCK** at moderate prices.

This being one of the oldest establishments of the kind in Virginia, which has never changed proprietors in a quarter of a century of its existence, I claim a practical skill in propagation, and an acquaintance with successful varieties, unexcelled in Piedmont Virginia. And when it is remembered that this is locally the heart of the great fruit-growing region of the South, it must be pre-eminently the place to obtain the most reliable fruit stock. But the great wonder is (as I have been told to the prejudice of the reliability of my stock,) how I can afford to sell good and reliable trees so much lower than the same sort of stock can be had at our city nurseries. I will tell to all how I can afford to take only a fair price for my goods: I am at less expense to live and grow my stock in the country than those who live in and conduct near a city; I deal directly with my customers without the intervention of agents, clerks and foremen at high salaries and costly outfits, and, therefore, save to my customers from 50 to 75 per cent. which is credited to them on my prices, and they get the benefit of all that which would go to pay the agents, &c., so the net proceeds is not far from being the same at last, but the difference to the purchaser is great. I am pleased to say that I have a thrifty and handsome stock of most of the leading kinds of "APPLES," including about 10,000 WINE SAP $3\frac{1}{2}$ to 7 feet, 2 and 3 years old, at \$10 per 100; 1 year, 2 to $3\frac{1}{2}$ feet, \$6 per 100. The stock of WINE SAP, I learn, is about exhausted elsewhere for this season in Virginia.

Of Dwarf Apple I have a great variety, 3 and 4 years old, 25 cents each. My new Piedmont Pippin Dwarf, and Extra Standard, \$1 each. No such apple as this has been introduced in this country lately. It resembles Albemarle Pippin, but the tree is different, being a much better grower. I possess the entire stock. This is priced high enough for those who have doubted my stock on account of low prices.

PEACH TREES.—Common choice early and late kinds from Hale Early to White Heath Cling; 1 year, $3\frac{1}{2}$ to 4 feet, 15 cents each, \$13 per 100; Early Beatris, Louis Rivers and Fosters, 25 cents each, \$20 per 100.

PEARS.—Standard and Dwarf, 50 cents each.

CHERRIES.—Standard and Dwarf, 50 cents each.

TERMS.—One-half the amount cash with the order; balance on 0d livery. If all the bill is sent with the order, if to the amount of \$3e- and upwards, I will pay the freight charges through to the purchaser's depot.

Send remittances by registered letter, P. O. Order, Bank Check, or Express prepaid, at my risk. And direct all orders and communications to

JOHN DOLLINS,

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G. W. ROYSTER & CO., **Commission Merchants,** **RICHMOND, VIRGINIA.**

Solicit Consignments of Tobacco, Grain, Flour and Produce Generally
Refer by Special Permission to J. W. LOCKWOOD, Cashier National Bank of
Va., Richmond; ISAAC DAVENPORT, Jr., Pres. First National Bank, Richmond.
Grain Bags furnished on application. angly



ASK FOR THE

"LOCKWOOD HOE."


BLADE ALL STEEL.

Eye malleable iron. Every Hoe warranted
Best Hoe for general use in the market. The
Hoe for merchants to sell, because it gives
satisfaction.

Manufactured by

BALTIMORE STEEL HOE WORKS,

and **O. H. HICKS & CO.**

 For Sale by the trade generally.
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BUCKEYE MOWER AND REAPER, **Sweepstakes Thresher and Cleaner.** **ECLIPSE AGRICULTURAL ENGINE,**


Best, Cheapest and most Economical Engine in the market.

Circular Saw Mills; Mill Stones, Bolting Cloths, Eureka and other
Smut Machines; Belting, Spindles, Mill Picks, Portable Farm and
Grist Mills.

Cucumber Wood Pumps with Patent *Cast Iron* Cylinder. War-
ranted best and most durable Pump in the market, &c., &c.

JOSHUA THOMAS,

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 Prices and Descriptive Circulars furnished on application.
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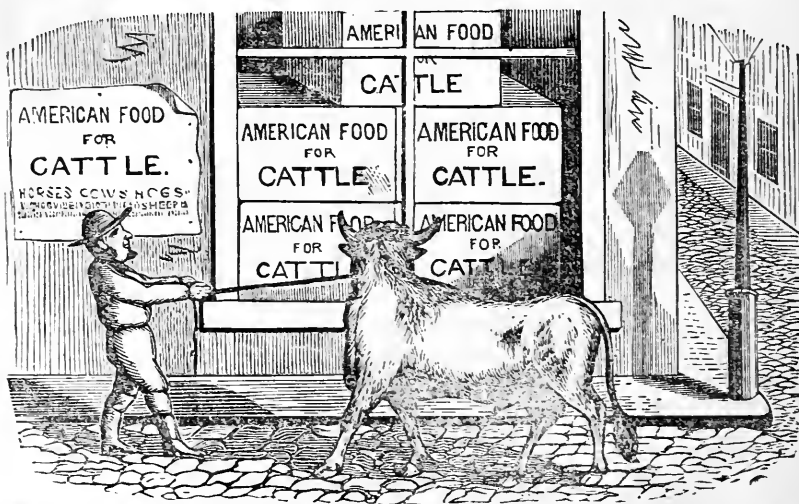
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PURE FINE GROUND BONE,
PURE BONE FLOUR,
 PURE DISSOLVED BONE ASH,
Pure Dissolved Raw Bone.

66° Oil Vitroil, German Potash Salts,
 Pure Chemicals for making Superphosphate at the lowest market price.

Call at **R. J. BAKER & CO'S.**

Aug—1y

BALTIMORE, MD.



THE AMERICAN FOOD FOR CATTLE

Invaluable for Horses, Cows, Sheep, Pigs, Poultry and Dogs.

To breeders training cattle for the show-yard or for sale, it is essential. It produces flesh, hair, milk and wool. It is conducive to health, cleanliness and good condition. For the diseases of Poultry it is a specific.

ROBT. HUME, Manufacturer,

Jan—3t

Office and Depot: No. 18 Fifteenth street, Richmond, Va.



“LINDEN GROVE.”

BERKSHIRES!

The SALLIE, SWEET SEVENTEEN, STUMPEY and SNIPED families, bred to perfection

At “LINDEN GROVE.”

Having lately received two importations of Berkshires, of first-class blood, among which were *Stewart's Gem*, *Stewart's Duchess* and *Stewart's Pride*, which won first prizes at Gloucestershire Agricultural Society, at Cirencester, Eng., and also prizes at other leading shows in England—there were also other prize-winners among the lot, such as the *1st Duke of St. Bridge*, winner of 1st prize at Croydon, England, and other noted shows, and pronounced by experienced judges to be the finest boar ever seen on exhibition—these, in addition to my last May's importation, give me one of the finest and most valuable herds of Berkshires in England or America—if not in the world—and I am prepared to furnish pigs of all ages, sired by *Plymouth* (the highest priced Berkshire boar ever sold in England or America), *Othello 1st* and *2nd Dukes of St. Bridge*, and by *Mark Antony*, out of my grand imported prize-winning sows, at reasonable prices.

Address,

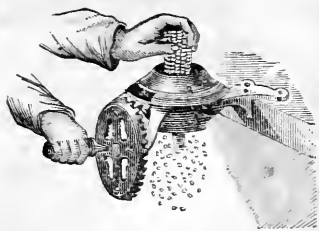
T. S. COOPER,
“Linden Grove,”

Coopersburg, Lehigh county, Pa.

P. S.—My Prize sow Sallie XI. (Royal Beauty), winner of 1st prizes at the Royal Show, England, '74, 1st prize in her class at Ohio State Fair and Cleveland, and winning sweepstakes in a large and hotly contested ring at both Fairs in '74, has at present a litter of 8 pigs (7 boars and 1 sow) which are now 8 weeks old, and sired by imp. 2nd Duke of St. Bridge, which I will sell when three months old, boxed and delivered at our express office, with feed for journey, for \$50 per head. In her last litter she had 8 pigs; two of which—*Sambo XI.* and *Sallie XIV.*—were got up for the shows, and won first prizes at the leading shows in the West. The boar won 1st prize in his class at the following fairs: Ohio State Fair, Indiana State Fair, Cleveland and St. Louis; also sweepstakes at Cleveland and at the world's show at St. Louis, as best boar of any age or breed. The sow won sweepstakes at Cleveland, in a large class, as best sow of any age or breed; also 1st prize at other local shows.

My imported prize-winning sows, *Stewart's Gem* and *Duchess* have littered seven pigs each since their arrival, the largest, finest and best formed pigs I ever mind seeing. They were sired in England by Capt. Arthur Stewart's prize boar.

The young pigs will be for sale when three months old.—T. S. C.



**Home
Corn
Sheller**
The
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Sheller
for fam

ily use in the market.

Every Machine Warranted. Price, \$2.50, shipped by express, safely boxed, on receipt of price. Every farmer needs it. Live agents wanted. Send for descriptive circular to **LIVINGSTON & Co., Iron Founders, Pittsburgh, Pa.**
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10 CENTS sent to **BRIGGS & BRO.,** Seedsmen, Rochester, N.Y., or Chicago, Ill., secures postage paid, the January Floral Work. Free to customers. See it! Save Money and Failure on Seeds!

jan—1t

ROSES FOR THE MILLION!

Twelve choice Roses, assorted colors, by mail, for One Dollar. Descriptive lists sent free. **TYRA MONTGOMERY, Mattoon, Ill.**
jan—3t

THE 100 DAYS TOMATO.

Actually ripens in one hundred days. Earliest Good Tomato Ever Offered. Free from rot; ships well; remarkably prolific. \$419. 50 sold from one-fourth acre. Positive proof of these claims in free circular. 25 cents per packet; 5 for \$1.00; post-paid. Address, **J. A. Foote, Seedsman, 512 Main St., Terre Haute, Ind.**
jan—2t

**FLOWER
SEEDS.
Vegetable
SEEDS.**

Spooner's Prize Flower Seeds.
Spooner's Boston Market Vegetable Seeds.
The cheapest and best seeds in the market. Send two 3 cent stamps for our illustrated catalogue and the prices. **W. H. SPOONER, Boston, Mass.**
jan—2t

FARM FOR SALE.

A fine Grass Farm of 720 acres, in Pittsylvania county, Va.; admirably adapted to sheep raising; which will be sold cheap. Address Editor of *Planter and Farmer*.
jan

FOR SALE.

I offer for sale, a thoroughbred pair of Essex Hogs, aged ten and twelve months. The sow has taken the boar. These hogs are very beautiful, and come from the best imported stock.

C. M. ROBINSON,

P. O. Box, 157, Richmond, Va.
jan—2t

WILLOW BANK STOCK FARM.

I am breeding Devon cattle, Merino sheep and Berkshire pigs, of pure blood and choice quality. My cattle are bred from the importations of C. S. Wainwright, and Hon. Ambrose Stevens. They are choice breeders and prize-winners. Have taken in the three seasons past, eight herd prizes and over sixty individual prizes in Iowa, Illinois and New York. My sheep and pigs also are of strictly first quality.

Also White Leghorn Chickens. Prices reasonable and satisfaction given. **B. F. PECK, East Bethany, Genesee County, N. Y.**
jan—1y

The Improved Evergreen Broom-Corn.

The result of five years experimenting.—The Improved Evergreen Broom-corn grows to a medium height, brush good length, fine and straight yields much better and will bring one-third more money in the market than any other variety, making from 7 to 10 hundred pounds of brush and 40 bushels seed to the acre. Seed is worth more than oats for feeding.

A sample of seed and brush can be seen at the office of *Planter and Farmer*. By mail on receipt of price (with full directions how to cultivate), 50 cents quart, 4 quarts \$1.50 by express, the buyer paying expressage; \$2 per peck; \$6 a bushel. Two quarts will plant one acre. Address,

SAMUEL WILSON,

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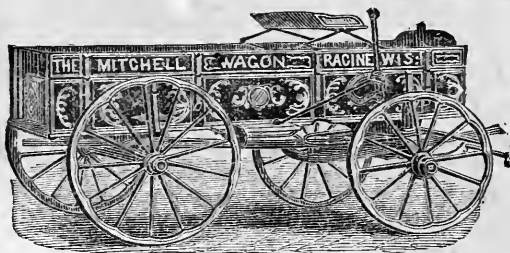
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RICHMOND, VA.,

MARCH, 1876.

No. 3.

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L. R. DICKINSON, EDITOR AND PROPRIETOR.

Vol. XXXVII. RICHMOND, VA., MARCH, 1876. No. 3.

[For the Southern Planter and Farmer.]

SOMETHING ABOUT BOTH THE PAST AND PRESENT.

You do no more than justice to the excellent paper of Capt. Chamberlayne in recommending it to the careful perusal of your readers. In this address on public spirit I find much food for reflection, and am led to recur to old times. He says that in 1840 our agricultural class was bankrupt, and only saved from utter ruin by the increased value of slave property. The period of 1830 was one of as great depression in prices as that of 1840, and it was, I think, in 1844 that cotton sold for four cents a pound. After the peace of 1815 all kinds of property in the South was inflated to an incredible degree; and having gone up to fabulous prices, receded in four years to a point of ruinous depression to the unfortunate purchasers. From 1820 to 1830, with a short exception of the great cotton speculation of 1824, prices ruled ruinously low. Strange to say, after the Nat Turner insurrection, in 1832, a rapid enhancement in the value of slaves took place, culminating in the flush times of 1834-5.

With these dates, I return to the text: that agriculture was a failure in this State in 1840. It surely was equally a failure any time for twenty years previous; yet many improved their circumstances without resorting to the sale of negroes. The great John Taylor, of Caroline, who was as wise as a farmer as he was as a statesman, was far from despairing of the condition of a Virginia farmer. He showed his confidence in the subject by investing largely in lands, and then showed they could be improved. In public spirit of the right sort he was the leading mind of his State. And now we may recur with profit to the unchangeable laws of agriculture in regard to making manure, which he so strongly advocated in his writings and practised on his estates. The author of "Arator" inculcated what in his day was neglected, and which since the introduction of bought fertilizers has been no better practised. No doubt his firm belief in the efficacy of farm-pen and stable manures had much to do

with bold investments in land. Fielding Lewis, of Wyanoke, an eminent farmer in his day, when consulted by his friend George Harrison, about 1825, urged him to use lime if he had to borrow money to pay for it. This becomes a text to reason from. The Harrisons doubted the profitableness of farming on some of the best lands in the State, showing how great must have been the general depression of agriculture in the State at that period. Lime proved the salvation of many estates dating from that period, but how wretchedly poor the mass of farmers were in the State can hardly be exaggerated. The style of farming was barbarous. On the Rappahannock a bushel of wheat to a barrel of corn was considered the common proportion; in the southern counties tobacco sold for so little that a planter who got \$10 for his best tobacco was called a successful planter. The price of lands in 1830 was so low that the then price might compare unfavorably with the present. Negroes sold for \$200 apiece in families. It was a good time for shavers of paper, as they were called, and yet a notorious one said he would as soon take a deed of trust on a flock of partridges as on slaves.

There was a steady improvement in the value of property, real and personal, to the period of the war, during which time Peruvian guano was largely used in middle Virginia, and lime and marl in the tidewater region. At this time little of either is used, and manipulated fertilizers have taken their place. An intelligent neighbor, who is actively employed in this State and North Carolina in the insurance business, remarks that much more attention is paid in North Carolina to making compost heaps and saving manure, especially where cotton is produced, than he has ever seen done in this State. Surely if it pays to make manure for cotton, it is equally necessary for tobacco. What has not manure done for Great Britain, France, Belgium, and China? How could subsistence be provided for the teeming millions who crowd those countries without the most scrupulous attention being paid to saving every material which can add to the fertility of their soil? In England the importation of bones, oil cake and cheap cereals used for fattening cattle, together with the turnip crop, result in enriching the soil, and thus they find it cheaper to import grain than beef. It being the experience of all countries, ancient and modern, that lands can only be kept up to a profitable point of productiveness by constant attention to fertilizing them, how can Virginians disregard imperative laws and yet expect to succeed? We have the teachings of nations and all time to guide us. The present poverty of this State is unquestionable, and there is none other than the old way to mend the matter—do without all superfluities, but never fail to grease your wheels. Let not the farm suffer, and your back display fine wear of Northern manufacture; speed the plough, and let it be a good one, and gear all right, and starve yourself before the mules. I live in Old Fluvanna—not the least fertile of our counties, and far from being the least prosperous, as it is strong in vigorous, sober men, and I find such prospering; buying our granite lands to raise tobacco, it is true, at low prices,

but not because they do not know they are worth much more than they give, for the depression around us casts a dark shadow on a land Nature has greatly favored. Our resolute, hard-working farmers, who are out of debt, are saving money as fast as they did before the war, and all are learning to accommodate themselves to the great change which has come over the country.

The memory and example of such men as Mr. Thomas Miller, of Powhatan, who never dressed but in neat homespun, should be cherished as that of wise exemplars of sound patriotism. Let Virginians, beginning with our Governor and members of the Legislature, wear cloth manufactured in Staunton, Fredericksburg or Charlottesville, and the men of the State follow their example, and how little of our cloths would seek a market out of the State, and how great an impulse would be given to our home industries in that direction.

Fluvanna Co., Va.

J. R. BRYAN.

[NOTE BY THE EDITOR.—Gen. W. H. F. LEE, (“*Old Fashioned Farmer*”) gave us an article in the December Number of the *Planter*, on “The growing power in the State, the small farmers.” We beg that our friends, wherever our journal is read in the South, will do us the kindness to make a list of the men in their neighborhoods who came out of the war penniless, and who have prospered in farming notwithstanding. No teaching has the strength of example, and it would give us the greatest pleasure to exhibit the results of the work of these worthy men, as patterns for many of our youngsters, who both think and talk more about marrying rich girls than of what is due from their own muscle and energy. The world owes no man a living; he owes it to himself.]

[For the Southern Planter and Farmer.]

A SMALL SPECIMEN OF HIGH-FARMING.

You ask me to report again the particulars of a small attempt at “high-farming” made in the years 1856–7. I sent a detailed statement of this experiment to the *Planter* just after the war, and regret that you have not been able to find the volume containing it, as my memory, taxed with far more exciting topics meanwhile, may not be quite so accurate as I could wish. The main features, and more important points, however, I think I can recall with sufficient distinctness.

In the spring of 1856 (the guano mania being then upon me in its most virulent form), I was seized with an eager desire to try a little “high-farming,” and to watch the effect of a “heroic dose” of the novel and highly concentrated natural fertilizer, and that the results might be more conspicuous, I determined that it should be an “*experimentum in corpore vili*,” which as you know is the Latin for very poor land, or, as I told you lately, a soil “eminently adapted to the use of Peruvian guano.” Accordingly I laid off a piece of land (by subsequent measurement, 37 acres), of which it would have been gross flattery to say that it could produce (unaided) 3 barrels of corn or 5 bushels of wheat to the acre. It was deeply and thoroughly plowed, and “comminuted” to a degree that would have satisfied

the utmost exactions of Jethro Tull. On the weaker places I applied, here and there, a few loads of ordinary farm-yard manure, and to the whole lot I administered 500 pounds (*per acre*) of a combination, "half and half" of Peruvian and Columbian (Phosphatic) Guanos. Two-thirds of the land (as I remember) was put in tobacco, the remainder in corn, peas, potatoes, &c. The season proved to be very dry (always is when I put that particular field in cultivation—for there seem to be lucky lands as well as lucky men), and the tobacco as a crop belonged to that class contemptuously designated as lugs. As to the corn, &c., I recall nothing, but presume they were pretty well burned up. I dismissed them from the ledger and looked to the wheat for my recompense.

When the lot was to be seeded in the early October, I was confined to my bed, and when my manager asked that he might add a little more guano ("just to *perteen* it up," was his persuasive phrase), I reluctantly consented to the application of 100 pounds per acre, but when in a day or two I turned out, it was only to discover "with mingled emotions" that he had put on certainly (for I counted the empty bags) at least 200 pounds to the acre! This is "high-farming" with a vengeance, I exclaimed, and at once had a melancholy foresight of a rank sappy growth, "lodged" by the first thunder-storm, and yielding little more than straw at harvest. For once, *at least*, "my prophetic soul" was fortunately wide of the mark. The season (as I have said) proved to be dry throughout—the wheat was only of medium height, and came *nearer* to the *Valley Standard* ("thick enough for a *black* snake to crawl over") than any I ever saw. The result was beyond my wildest hopes—the lot averaged 33 bushels per acre (7 selected acres producing 40), and my "summing up" was, that after deducting the cost of all the guano (though the "lugs" paid a considerable portion), and giving the land a *complimentary* credit of 5 bushels (as the natural production), I had a clear profit left of about 30 dollars per acre—the wheat netted about \$1.50 per bushel. I owned my labor then! (Ehew!)

You and your readers would like to know something of the subsequent *career* of this newly credited soil. Well, unfortunately, the grass-seeds failed, so I put the lot in wheat again, using (with the drill) about 80 pounds of guano (per acre), and reaped a crop of 20 bushels average. The grass failed again, and then I succumbed. The war and many troubles extinguished all hopes of further "high-farming," but I have noticed that the land in question has never forgotten the attention paid it so many years ago, and has produced notably better crops than formerly. I hope my brother farmers will read the moral aright—that "deep-tillage is worth more than broad-acres," and that there is nothing in nature more grateful than our sadly neglected mother earth.

Orange Co., Va.

B. JOHNSON BARBOUR.

[For the Southern Planter and Farmer.]

BROOM CORN—HOW PRODUCED AND THE VALUE OF THE SEED FOR STOCK.

As raising broom corn is little understood by most farmers in many parts of the country, especially in the Middle and Southern States—and as a paying crop it is of much more importance than many suppose—for the benefit of those I will give my experience, having been for the last fifteen years raising it as a main crop.

Broom corn should be planted in the Spring, about the same time as Indian corn, on ground that has been thoroughly pulverized with the harrow (corn stubble or clover sod being the best). Mark out the rows $3\frac{1}{2}$ feet apart, then sprinkle the seed along as evenly as you can by the hand, or, what is better, use a common garden drill; cover by passing over a common one-horse harrow, going twice to the row if the ground is rough; do not cover too deep; after it is up about two inches high, go over with a two-horse harrow twice to the row. Don't be afraid of tearing it up. As the great mistake of people is in planting too thick, the stalks should be three or four inches apart in the row; $2\frac{1}{2}$ quarts of good, clean seed is just enough for one acre if the ground is in order. This harrowing kills the weeds and gives the corn a start, after which it requires the same working as other corn.

When it begins to shoot out in head, go over the field and bend down all that is out before it gets crooked; this operation will have to be performed several times. After the seed is nearly ripe, commence cutting; first cut the brush from two rows, then with a corn cutter cut the stalks of these two rows; lay them crosswise, so as to make a bed to keep the brush off the ground; lay the brush on this bed, one bed holding the brush of eight rows; let it lie in the sun two or three days, after which tie it up in bundles and shock in round shocks, ten or twelve sheaves together; cover the shocks over with stalks, tent-fashion, making them tight at the top, but so the air can pass through the bottom; in this manner it ought to remain three or four weeks until thoroughly dry; then haul to the barn, and take off the seed. This operation is best and quickest performed by a common threshing machine; take off the top if an undershot; cross the band; have a boy to hand you the brush, as much as you can hold tightly in your hands at once, holding the seed ends on the cylinder as it revolves. One man and a boy can clean several hundred pounds a day in this manner. Much depends upon the kind of soil in raising broom corn—flat, loamy soils or river bottoms being the best; but good broom corn can be raised on good corn land, yielding from 700 to a 1000 pounds of brush and 40 bushels of seed to the acre—the seed being worth more than oats for feeding.

There are several varieties of broom corn, but the Improved Evergreen is much the most profitable, being worth almost twice as much in the market as the common red, and yielding more and better seed.

Mechanicsville, Bucks county, Pa.

SAMUEL WILSON.

[For the Southern Planter and Farmer.]

THE VIRGINIA AGRICULTURAL SOCIETY—EVILS IN ITS MANAGEMENT THAT NEED CORRECTION.

In the published proceedings of the Executive Committee of the State Agricultural Society, held in the city of Richmond on the 12th day of January, it is reported that the condition of the finances is such as to induce the Committee seriously to consider the expediency of dispensing with its "annual Fair during the year 1876."

Its condition must be very bad to induce the Committee to cast off the only source of revenue that the Society has left. And it seems to me that the remedy is as bad as the disease—indeed, is no remedy at all, and must result in present paralysis, and, if continued, in decay and death.

Before treating the case, I think it would be well to make a diagnosis of the disease, and then apply the remedy. What has caused the change in the condition of the Society? Time was, and that at no remote period, when it did not owe a dollar, and had some forty odd thousand dollars in interest-bearing stocks, not lost by the war, which ruined nearly all other institutions in Virginia. When the Society was endowed with this magnificent fund by gratuitous contributions, in addition to other large donations made by the cities of Richmond and Petersburg from time to time, a clause was put in its constitution providing that its principal should never be used or expended, but that the interest alone should be subject to its uses. In an evil hour, by a liberal construction of that clause in the constitution, it was maintained that the investment of the fund in real estate was not prohibited, and a large proportion of the fund was appropriated to the purchase of the Fair Grounds. Since then, between thirty and forty thousand dollars have been expended in improvements, so-called, under the direction and supervision of an architect, that most expensive of all luxuries, which has absorbed not only the whole fund, but all accruing receipts, and has left the Society in debt to the amount of \$12,000 over and above the cash in hand. All that it now owns is its property in the Fair Grounds, containing about sixty acres, with the structures on it, all of which are of wood and perishable, with the exception of two small brick buildings. Such is its condition, and the remedy suggested is to stop the Fair and stand still. I learn that the last Fair fell about five thousand dollars short of meeting the annual expenditure. If the stopping work, the cutting off the Fairs, be not the remedy for the impecunious condition of the Society, what is the remedy? Instead of suspending work, the Executive Committee should go to work in earnest, and with redoubled vigor and energy. At the adjourned meeting some weeks ago, the committee to whom was referred the Treasurer's account submitted the following report:

RICHMOND, VA., January 12, 1876.

To the Executive Committee of the Virginia State Agricultural Society:

Gentlemen.—Your committee appointed to examine the accounts of the Treasurer beg leave to report that they have performed their duty, and it gives them

pleasure to say that they find them correct and neatly kept, with proper vouchers for all disbursements. We find the condition of the Society's finances to be about as follows: Cash on hand January 1, 1876. \$1,000.72; indebtedness, in round numbers, \$13,000, which is an increase over last year. This increase was caused in a great measure by a storm in the month of March last, which blew down a large amount of fencing and caused other damage to the Society's property amounting to over \$3,000. The gate fees of 1875 fall short of 1874 \$1,393.18. Your committee are of opinion that a great many of the bills paid by the Society are very extravagant, and that a large reduction in the expenditures of the Society can and ought to be made. Unless the expenses are reduced to an amount equal to the receipts we had better discontinue our fairs. We recommend that the refreshments at the President's office be discontinued, and that the supplying of forage to exhibitors be rented to private parties, which will bring in some revenue, instead of being a considerable loss. We suggest that the printing account can be greatly reduced by giving out the premium list to contractors. These are some of the subjects that we know can be greatly reduced, and we feel sure that others could be named, so that the reduction in the aggregate would be large enough to enable the Society to meet its obligations and continue its fairs.

W. A. BURKE,
JAMES NEWMAN,
ROBERT BEVERLEY,
S. P. MOORE.

The report was adopted.

FAIR OR NO FAIR.

Col. Beverley, of Fauquier county, offered the following:

Whereas, the report of the Finance Committee shows that notwithstanding the favorable auspices under which the fair of 1875 was held, there having been an unusual attendance of visitors in Richmond, the Society has largely increased its indebtedness; and whereas, the Centennial exhibition to be held during the summer and fall in Philadelphia will most probably detract a great deal from the attendance on State fairs; therefore

Resolved, That unless some other resource can be devised to reduce the indebtedness of the Society, it is, in the opinion of this committee, unwise to hold a fair during the year 1876.

From which it would appear that they had an inkling of what ought not to have been done, and what is necessary now to be done, to stop leaks and reduce expenditures. The reforms suggested by them are necessary and proper, but they are, in my judgment, insignificant compared with others—mere rills and rivulets in comparison with the flood tide that is wrecking and swamping the prosperity, if not the life of the Society. How comes it that the receipts from the throng of visitors at the Fair for four consecutive days, numbering from ten to twenty thousand or more per day, do not equal the disbursements? Did it never occur to the Executive Committee that the free ingress into the grounds without the payment of gate fees might account for the deficiency in their receipts? Have they ever examined, or have they any means of knowing whether the pay list is as large as the free list? I do not mean that the President should be restricted in his privilege of inviting individuals on the score of reciprocity or courtesy, in appropriate cases. But I do insist that men in masses should not be admitted free, whether they belong to the military at home or abroad, to the press, or to societies, or to the reverend clergy. The Agricultural Society is composed of members, either life or annual—all private individuals—and should be controlled and managed by them alone, and is responsible to no power outside of the Society; and the Executive Com-

mittee, as their agents, should consult the interest alone, and manage their affairs so as to promote and subserve the purposes of their organization, free from any other influence or control. The general public are entitled to the privileges of the Fair Grounds when they pay for them, and not before; and if the exhibitions are conducted without the violation of law they have no right to complain. It is the duty of the Executive Committee to make the fairs pay by practising the most rigid economy, and introducing the most searching reforms; and when they address themselves to these objects, they will become a source of profit, and not of loss. How much did and do the race course and the grand stand cost first and last? and what interest in the country, agricultural or otherwise, has been promoted by them? How much of the sixty acres in the enclosure, which is blown down nearly every year, is necessary for articles on exhibition, or is occupied by the crowd? What portion of the \$3000 expended in reconstruction of enclosure and sheds in 1875 is due to the one and the other of these improvements? Would it not be wise to economise expenditures, to husband resources, and, if need be, to sell off a portion of superfluous territory, even if it did interfere with "trials of speed," commonly so-called, or hurdle races, so destructive to the cedar fences and the young gentlemen who fail to clear them? I know that the times are fast and sadly out of joint, and that these crude and desultory reflections are not suited to them; but the interest that I feel in the cause of agriculture and this Society, upon which, in a great measure, it relies and depends for progress and success in the State, prompts me, at the hazard of being considered an old fogey (which I am) to offer them. My connection with it, from its first inception to the present time, as a life member and a member of the Executive Committee, and formerly its President, will excuse, if not justify, the obtrusion of advice to the President and Executive Committee, for whom I have the highest respect, and to whose Board I belong *ex officio* as a consulting and advising member. Pay your debts.

Amelia Co., Va.

LEWIS E. HARVIE.

[For the Southern Planter and Farmer.]

WE MUST UNDERSTAND THAT THINGS HAVE CHANGED

The deplorable condition in which Virginia farmers found themselves at the close of the war—without capital, with disorganized labor, surrounded by general dilapidation and stunned by the sudden annihilation of the accumulations of years of toil—naturally excited inquiry, and many theories were ventilated on the question, "What shall we do?" The question was an important one, and its satisfactory solution was regarded with much interest. But the difficulties to be surmounted were great, and it is not surprising that no striking results followed. The prejudices of generations had to be overcome; the practices and habits which had become a part of our nature had to be extirpated, and a new life, often in old or middle age, had to be entered upon. New habits, new relations, the most difficult in human "sociology," had to be formed,

and all this under the heavy hand of oppression, with an uncertain and threatening future. The experience of a few years, however, has afforded opportunity for more calm contemplation of our surroundings, and suggests another inquiry of a negative character, not less interesting or worthy of consideration, viz: "What we cannot do and ought not to attempt."

The times are changed and we must change with them, is a principle which the teachings of the last decade should firmly impress upon us. In no calling or pursuit in life is system in the conduct of affairs more needful than in that of the farmer. Without it all is confusion, loss and disgust. We have had time to learn, and the lesson has been a sad one to many of us; that we cannot and ought not longer to persist in a haphazard course of husbandry, from which the chief crop harvested has been disappointment and loss. In our destitution we ought not to attempt to cultivate large areas which are not of sufficient fertility to produce crops which, after paying costs, may be safely relied on to leave a fair margin for profit. To the disregard of this wholesome truth, obvious to the most cursory observer, is to be traced much of our present distress. Reformation in this one particular would in a few years greatly change our condition, and substitute the bright and cheering light of enterprise and hope for the gloomy forebodings of the future, which now paralyze our efforts. Indeed, there seems to be a marked reluctance on the part of farmers to analyze the causes which retard their progress or render unavailing their most sanguine hopes. Convinced, as they must be, that all, or nearly all, of the profit of their capital is annually absorbed by the cost of labor and its supplies, without applying the axe to the root of the evil, they content themselves by declaiming on the inefficiency of their labor and vociferating anathemas dire on the head of the poor negro, who is responsible to the extent only of misapplied efforts under the unskilful guidance of his employer. No industry, no enterprise, however persevering, can extract from poor land (such as is largely cultivated in Virginia) remunerating crops. The large area put in the favorite crop is often boastfully referred to, and the anticipated result hypothecated on the number, not the quality, of the acres or of the husbandry. In all such cases, where the means of fertilization are absent, and the necessary amount of labor is employed with attendant expenses, increased poverty of soil follows, and in due time bankruptcy. Even in *ante bellum* times this practice was unremunerative, often leading to embarrassments, which still exist. If it could not be borne then, how is it possible to sustain it now, with free labor, double taxation, increased expenses and diminished resources? We certainly cannot afford to continue longer in this rut; indeed, it is seriously apprehended that many of us are even now unable to pull out of it. If experience demonstrates (and we are sure it does) that the course hitherto pursued has, and will continue to lead to disastrous consequences, it is certainly the part of wisdom to abandon at once a system so pregnant with evil, and adopt some other, from which better results may be reasonably expected. The great maelstrom of agricultural profits is the pay roll of labor. Remote from market, with labor rates out of proportion to the value of its products, without competition among transportation companies, we are the victims of monopolies, and must sooner or later succumb to the burthens we bear, if we tamely submit to our present tyranny of old customs and habits.

The old cotton States of Georgia and South Carolina, by their extended culture and concentrated effort in the production of a single staple, have brought sterility upon their once fertile fields; and ignoring their changed condition, still persevere, by costly means, to increase a product, the value of which decreases as its production increases, to a point even below cost. The same may be said of the tobacco region of our own State, by no means excepting other portions, where a course scarcely less suicidal is still pursued. The State of Virginia was once celebrated for the character of her tobacco. In the markets of the world its superiority was recognized and appreciated. Can this reputation be sustained, when the general effort is quantity without special reference to quality? A visit to our warehouses will hardly suggest a favorable response.

We need a radical change. The quiet and peaceful occupation of the farmer and planter must cease to be a hazardous speculation. The merchant who, without available capital, imprudently expands his business beyond its legitimate limits would be crushed by the first breath of financial disturbance. Can the farmer, similarly circumstanced, claim greater security when he has to encounter many more casualties—the vicissitudes of seasons, the failure of crops, and unremunerating markets? So long as the present dearth of capital and the high rate of interest prevail, our operations and responsibilities must be wisely restricted. Where one hundred acres, or fifty, or twenty, are now cultivated, let the half of each be substituted, as the ability of the proprietor may suggest, and of course a corresponding diminution of the labor force. Let the aim be at high farming, diversified production, attention to small things, strict economy in every department. Perhaps there is no particular in which the average Virginia farmer is more amenable to criticism than in the culpable neglect and waste of his supplies of domestic fertilizers. The manure heap has been significantly denominated the “farmers’ bank.” If properly managed, and its stock be periodically renewed, it will not fail to honor the drafts made upon it.

But it may be asked, what disposition is to be made of the lands discarded from cultivation? They had better remain uncultivated than tilled at a loss. Besides, they need not remain idle. They may be made tributary to the fertilization of the favored portions, and at the same time improved and pay a handsome rent. No farm products meet more ready sale than mutton and wool or beef and butter. The stock may at first be of inferior character, yet adapted to the capacity of the pasture. By judiciously husbanding and concentrating the accumulations of manure from this and other sources on a limited surface, the effect would be speedily felt in increased production with greatly diminished cost. The area of fertility would be annually extended, and in due season the corner stone of all successful agriculture would be safely laid in the firm turf on the luxuriant clover field.

JAS. NEWMAN.

Orange Co., Va.

SUBSOIL PLOWING—WHAT IT DOES.

From the days of Jethro Tull, until within the last twenty-five or thirty years, farmers were generally content to stir the immediate surface of the soil, and did not seem aware that a greater depth of

disturbance would produce larger and better results. Indeed, it was generally believed that the whole matter which went to fertilize plants, belonged to the immediate surface, or that portion known as *loam*—a name given, until very recently, to the disturbed portion only—which, by the combined influences of sun, air, and decay of vegetation, changes its color. The fact that the components of the soil beneath those points were all to be found as part of the integrants of plants was scarcely known, and still less so that they could not be absorbed by them, and thus go to make up their structure, until acted on by a series of influences caused by atmospheric contact and the presence of humidity, not the result of stagnant water. Liebig first exposed the true value of the inorganic substances of the soil, or those parts which were not the immediate result of plant decay; and farmers slowly yielded their long-cherished belief that the black portions of the soil alone could make plants. These new doctrines gave rise to the use of a subsoil plow, which, without elevating the subsoil to the surface, disturbed it, and permitted a free circulation of atmosphere between its particles. The deep cuts made by the plow also acted partially as under-drains, and permitted, under some special conditions of surface—such as the slope of hills, etc.—redundant water to pass away. Air necessarily entered, and chemical changes occurred; the surface of the particles of the subsoil were soon conditioned so as to sustain roots, and they passed into it to greater depths than had been before known. These, in turn, absorbed from the subsoil larger quantities of inorganic matter, rendered soluble by chemical changes consequent upon moisture and air. The constituents were taken into the plants above, and portions not marketable as crops, decayed in the upper soil, adding to the greasy, unctuous, organic matter new portions of inorganic food for future crops. Plants had longer roots as well as greater number of fibres, and larger crops was the consequence. The decay of these roots in the soil left tubes to great depths; the atmosphere could come in laden with gases, resulting from vegetable decomposition, required by plants; rains and dews, which wash the nitrogenous exhalations of all organic nature from the atmosphere, descended into the subsoil, which gradually changed color so as to make deep, loamy soils in localities where before only sparse, shallow-rooted crops could be grown. All this was heard of by the American farmer long before he was awakened to action; and even now, when every truly practical farmer owns a subsoil plow, he can tell you of some neighbor who cautioned him against its use, and who insisted that the deep disturbance of the soil would let all the manures filter downward; forgetting that, if that were true, every well would be the receptacle of the results of decay, every spring would be a cesspool, and every rivulet but an organic charnel house. Nature, in the wisdom of her laws, has rendered the carbon and alumina of the soil, after proper exposure to atmospheric influences, capable of receiving and retaining all the results of decay; and the value of a farm must, to a great extent,

depend on the depth to which its surface by disturbance is rendered capable of performing this peculiar function.

Thoroughly subsoiled-plowed lands soon become capable of deeper surface plowing, without injuring the crops; and, if under-drained, which is but the perfection of the very principles presented in the theory of subsoil plowing, then all the mechanical conditions necessary for maximum results are secured; and when these exist, the chemical conditions follow as a natural consequence.

Among the advantages arising from subsoil plowing, may be enumerated the following: the value of land for agricultural purposes is, in many instances, doubled, especially when substances are not disturbed too deeply, which might, for the time being, be unfriendly to vegetation; the relative amount of manure required, as compared with the amount of produce, is lessened; the farm is essentially protected from the effects of drought; all future labor of the farm is materially lessened, and thus the expenses of teams, the wear and tear of agricultural implements, are all decreased, while the quality of crops, and their quantity, are so augmented that, per bushel or per pound, they take a preference in every market.

NOTE BY THE EDITOR.—We copy the above from that excellent paper, "*The Pen and Plow*." While the labors of Mr. LAWES, for the improvement of the agriculture of England, have received the heartiest recognition by his countrymen, hardly less credit is due to the work of Alderman MECH. He has done more, and written more, in the matter of deep-plowing, than any one in the scope of our reading. He insisted that the Atlantic Ocean got as much from the soil of England, by surface washing, as the people, for whose sustenance it was given, did from the crops it produced. The condition of James River water, when the rains have been prolonged, shows where the very cream of our land on that stream goes. God's works are perfect works, and when He sends rain it is for use. The land, plowed but a few inches deep, will hold as a sponge only a certain quantity of water; when more comes, it runs off and carries with it, not the portion of the soil unavailable for crops, *but the available portion*, and yet we complain of droughts and impoverished land. This article of our contemporary is excellent, and we trust that what it teaches will be heard by willing ears; and more, acted upon. The accounts of Mr. MECH's operations are to be found mainly in the *Journal of the Royal Agricultural Society of England*.

WORKING HEAVY SOILS WHEN THEY ARE TOO WET.

One of the most conspicuous errors in the management of heavy land, where the ground is disposed to be hard and lumpy, is plowing or working the soil while it is too wet. This is a common source of evil and the practice is persisted in. People will put in their crops rain or shine, which is a great and hurtful error. It need scarcely be stated here that land plowed wet in the spring and baked thereafter, as it will be, becomes hard. This is known, and yet each spring we see it repeated. The same is the case in the fall, when it is thought it will not hurt land to turn it up wet, that the frost will make it all right, which is also a great error. The frost will aid its

amelioration, or prevent the evil which would result from the spring sun, but it will not make it harmless. This is the experience, whatever the philosophy may be. We have known gardens and other land of rich black loam plowed late, when the plow almost swam in the mud, it being thought and said that the soil would all be right in the spring. But it was not right. The following year there was no crop. The garden was a failure. How can it be otherwise? Here was mortar instead of mellow soil. The loose, porous soil, full of life and fertility, had its character changed. The soil was close and compact. Its texture was altered. It was no soil proper, only a collection of dead, compact matter, which the frost could not vitalize, as we know it does not—at least in one year—reduce lumps, which are the same kind of soil, only dried and broken up. It takes years to reduce lumps and clods to a fine and mellow condition. Then the sun and the rains must aid also in the pulverization. The proper way to manage heavy land is to drain all those places where the soil continues wet and soggy for any length of time after a heavy rain. Remove the cause of the difficulty, as we say of certain diseases, then work and regain what is lost. This must be done (if to be done well) by deep and thorough drainage. But if this is not practicable, plow a little deeper in autumn, and if possible loosen the soil below, giving drainage to the depth of loosening. Let the surface be rough in ridges, or otherwise thrown up, so that there may be as much exposure to the elements as possible. The object directly here is to increase the depth of soil, improving it by the addition of good mellow subsoil. Long, rank manure may be applied to advantage, as coarse manure will act favorably on the harsh soil with which it comes in contact. Muck, with a little lime added, is excellent to turn down, as the acid and the alkali will produce a fermentation. If a little manure can be added to the surface the effect on the soil will be such as to develop its fertility. If you have time and means to summer fallow the ground, dispense with the manure turned down in the fall, unless it may conveniently be done, and apply it in the spring. The heat will at once affect the fertilizing material, and through its fermentation the soil will be improved. After the manure has had its action, work the land thoroughly and often. Soon, after a rain is the best time, if such an opportunity can be improved. This is important. The heat and the rain together have a great influence in reducing the harsh character of the soil. Of course the wet condition of the land is to be avoided. The mean between the wet and the dry is to be aimed at. In a showery season the ground will frequently be in this desirable condition.

There will be no danger of stirring the soil too much. Too much rank, raw manure it is not likely will be worked in. The soil needs large quantities of manure. Make thorough work and you will have a foundation for all time to come. The practice will pay. It is the only thing that will pay.

September opening you will have a soil that you need no one to tell you will produce, as the seed bed will be like a deep "ash heap"

of mellow, rich land. There are no more lumps. There is no more hardness or harshness. You have a miracle of a soil before you. Let us see more closely what we have: There is the manure added, all the strength of the green mass retained and made one with the soil; there is the fertility of the atmosphere which the stirring of the soil imparted. This is precious, if but little. The material is prepared, is organic, is just what is wanted. These two sources have a great influence—greater because they are at once available. But there is still more—not the organic, but the mineral matter—which the action of the manure applied and the elements in connection, joined to the mechanical effect, developed. The soil itself, now treated well, has given up its wealth, so that there is an increase of the organic and inorganic elements. The mechanical also is not only improved, but revolutionized. A complete change has been effected, and in one year. Sometimes it takes the second year; for there are some bad soils in the world.

After a field has been managed in the foregoing manner, you will have a soil for all time; but you must take care of it. Soil is made to be taken care of just as our live stock needs attention; but the land needs more than all, as that is the great dependent source. The most is to guard against abuse and favor the land. This constant attention will keep the land in a desirable state of productiveness.

[NOTE BY THE EDITOR.—The above, from the *New York Herald*, should be read in conjunction with the foregoing article on “*Deep Plowing, &c.*” We keep our promise to present not only what our own people have to say, looking to improved agriculture, but the cream of other people’s contributions in aid of this vital business.]

[For the Southern Planter and Farmer.]

THE EXPERIENCE OF A MODEST FARMER.

What I know about farming that is worth relating would not fill many pages of the *Planter and Farmer*; but what I *don’t* know about it would make a good-sized volume; and, therefore, your readers may decide that in what follows I have given them some of the contents of the larger book. The last two numbers of the *Farmer and Planter* have been of unusual interest to me, from the fact that they contain several articles on that ever-interesting subject to those of us who are trying to improve the productive capacity of our lands, viz: *Manures*—compost, animal, and commercial. There seems to be one class of farmers who think there is no other fertilizer for all soils and in all situations except barn-yard or animal manures, and so far do Northern farmers, as a class, carry this idea that they advise that all the hay and grain produced on the farm, except the wheat, should be fed to stock to make manure wherewith to raise more hay and grain to go the same round, and so on *ad infinitum*. Your correspondent, G. B. S., in the September No., seems to have this idea to some extent. I propose in a future No. of the *Planter*

and Farmer (with your permission) to try and show that it will not pay farmers living near lines of transportation to thus feed out the products of the farm for the purpose of making manure. G. B. S. says it is cheaper to make and use compost manure than commercial fertilizers, and that 25 loads of his compost is as valuable, or will produce as much or more grain, as 500 pounds of average commercial manure. He does not, however, tell us of what his compost heap is made. If it is composed of a small part of animal manure mixed with a large lot of rotten straw, leaves, woods-earth, scrapings of ditch banks, muck, &c., as such composts generally are,—and I presume it must be so made to get up 1,800 loads in twelve months, unless the writer keeps a large amount of stock. (What a vast amount of elbow grease such a compost pile represents; it makes a weak man weary to *think* of handling it.) If made as above, I would not give 500 pounds of honestly made super-phosphate for 50 loads of such material, to say nothing of the labor of handling it.

I have a neighbor who took great care to build his stables near the edge of a dish-shaped hollow having a good clay subsoil, and which held water like a bottle, and into which all the manure, straw, and refuse of all sorts, was to go *a la Pennsylvania plan*, and into which everything did go for some time, as did, alas, also the rain from heaven; and, to use my friend's expression, it was a *sog-hole*, and a soggy job it was when he came to haul out the contents, which he did in the fall, and applied 60 loads of it to one acre and sowed it in wheat. I watched the result with interest. The yield was 12 bushels from the acre. And why? Because in his 60 loads, or 120,000 pounds, he had about 24,000 of dry matter, which, if it had been well-rotted manure, according to the best authorities I have, ought to have given 1,360 pounds of plant food, consisting of potash, phosphoric acid, or phosphate of lime, and ammonia, which it could not have done, judging from the crop made. Would not 200 pounds of super-phosphate *beat it out of sight*, and costing only \$5, when it was worth at least \$10 to haul this 60 loads of stuff to the field, to say nothing of the grain and hay consumed in producing it? G. B. S. seems to lose sight of this latter point. What were the hay and grain worth which was consumed by the stock to produce the animal part of his 1,800 loads of compost? As to paying for the work done in the products of the farm, I see only the advantage of the saving in hauling to market, as all farm produce represents so much money and will command it if offered in open market, and a laborer should not be made to pay more than regular net market rates.

I hope other correspondents of the *Farmer* will give us their views on the value of stable manure as compared with commercial manures, as it is a subject which cannot be too well ventilated. I hope your readers will not come to the conclusion that I ignore the use of composts and stable manure. I would save all of the latter made by the stock used in working the farm, and apply it to the best advantage with the least labor in handling it—of which more hereafter.

Your correspondent, D. W. Prescott, gives some good formulæ for making fertilizers, but I think they all yield too small a percentage of plant-food for their cost; besides the cost of freight to our farmers is too much in proportion to cost of the fertilizer, if of low grade.

In some correspondence with the great English agriculturist and experimenter, J. B. Lawes, in regard to his experiments with super-phosphate and nitrate of soda, I enclosed to him the analysis of a super-phosphate made in New Jersey, and which had given me a good return for its cost—\$50 per ton, and said to contain 10 to 12 per cent. of soluble phosphate, 2 to 3 per cent. of ammonia, and 4 to 6 of potash and soda. Mr. Lawes writes me that a super-phosphate yielding no more than 10 to 12 per cent. of soluble phosphate would not be considered of much value as a manure in England, and that a better article ought to be made here from S. C. Rock (which, he says, is the best source from which to obtain phosphate in the world) for \$20 per ton, and pay a profit to the manufacturer. I am satisfied we pay cost and charges on too much inert matter in the best of our commercial manures, and I would much prefer to buy the concentrated ingredients and dilute them to suit myself, and save cost and freight on the sand, plaster, &c.

GREEN FALLOWING.

I don't know that I can give Mr. Shepherd any information upon the points he has raised in regard to green fallowing, but will give him and the readers of the *Planter and Farmer* some of the results of green fallowing which have come under my own observation. One of my neighbors, wishing to improve a piece of land partially set in grass, had it plowed in June and sown in buckwheat at once, which made but a poor growth, although the season was favorable. About the last of August the buckwheat was ploughed under and the land sown at once in wheat; and although it was well put in, not more than half of the wheat came up, and what did, grew slowly and did not tiller well and made but a poor crop—not as good as the land ought to have done without the buckwheat fallow. From this experiment, and another on different soil, destitute of lime, and where a heavy crop of clover was ploughed under in June, and which so soured the land as to produce a great growth of sorrel where none had been seen for years, and so injured the land that the wheat crop on this fallow was a complete failure, taking the previous character and productiveness of the land into consideration.

On my own farm I ploughed in the second crop of clover on 10 acres, in August, 1872—the soil a heavy clay loam. The growth was so heavy and lodged so much that I had to cut it in advance of the plough and drag it into the furrows, where it was completely covered. As I ploughed this land throughout 8 to 10 inches deep (and I think made a mistake in so doing) the wheat was drilled on the 14th to 16th of September, with 160 pounds of Moro Philips' super-phosphate per acre. Some widths of the drill were left without phosphate, and the result was the most marked I ever saw. These strips, although on the best part of the field; did not make 10

bushels per acre, whilst the whole field averaged 22 bushels. Without the phosphate I should have made what I consider a failure on the best prepared clover fallow I ever saw, as the land was harrowed until it was like a garden. In this case it was not a want of lime in the soil, as the field had 75 to 80 bushels of lime per acre applied to it in the fall of '69, and was then sown in wheat, making 18 bushels per acre without fertilizers of any kind. Now, wherein did I err in this case? Will some good farmer tell me, as I have been afraid of green fallows ever since—although Prof. Johnston says in no other form can the same crop convey to the soil an equal amount of enriching matter as in that of *green leaves and stems*, and adds that they should be ploughed in before *flowering*, as the blooms give off nitrogen, and that the ploughing should not exceed 3 to 4 inches in depth.

I have this fall a green fallow in the shape of a great growth of ragweed, being a wheat stubble, upon which I did not get a satisfactory set of clover. The weeds are well put under by means of a weed-hook attached to the beam of the plough, and I have applied about 225 pounds of fertilizer per acre, composed of equal parts of Southern Fertilizing Company's Anchor Brand wheat manure and Allison & Addison's bone flour. I have sown 125 pounds of it broadcast and drilled in 100 pounds, believing that I will get a better set of grass by so doing, as I have found heretofore that the most grass was always in the drill rows with the wheat, where it received the benefit of the fertilizer. I will give the result of this green fallow next season, Providence permitting.

In giving the result on the clover fallow I forgot to mention one additional experiment made on that crop. Having read in Johnston's *Agricultural Chemistry* that some of the farmers in the county of Lincolnshire, Eng., burnt the straw on the ground, and had realized as much benefit from the ashes of five tons of straw throughout the rotation as from sixteen tons of barn-yard manure, I concluded to give it a trial. After the field was ploughed and harrowed the straw was hauled out and spread at. I suppose, the rate of a ton per acre and set on fire, much to the amusement of my neighbors. Well, it so happened that the straw was burnt upon portions of the field which were afterwards crossed by the unphosphated strips, and, strange to relate, as far as the burnt straw extended along them *the wheat was as good as where the phosphate was drilled in*. The land is now in grass, and you can see distinctly where the straw was burnt, the grass, orchard and clover having a greener appearance than the balance of the field.

So much for the straw experiment. And with this I must close this long epistle, hoping that you and the readers of the *Planter and Farmer* are not altogether tired out with its perusal.

Christiansburg, Va.

J. R. GARDNER.

NOTE BY THE EDITOR.—We wish one so well able, by the great success he has achieved as a farmer, and the happy manner he exhibits in imparting his knowledge, as our esteemed correspondent, would let his brethren hear oftener from him. He would undoubtedly derive both pleasure and profit from the details of

Dr. VOELCKER's investigation of "*Clover as a Preparatory Crop for Wheat*. (Journal Royal Agricultural Society of England). We know of no one, in the range of our inquiry, who has gone so fully into the merits of the question, and where its treatment is so little cumbered with technicalities.

[For the Southern Planter and Farmer.]

GRAPE GROWING IN VIRGINIA—VARIETIES OF GRAPES.

By LOUIS OTT, of Nelson County, Va.

III.

Not many years ago the belief was universal that the American grapes are not and never can be made fit for manufacturing good wine. In consequence of that, very expensive experiments were made to introduce and acclimate the European wine grapes, which failed in all instances—at least in the Atlantic States. I am not convinced of the impossibility of succeeding in that matter, if the experiments would be made in suitable localities and in the right way; but I cannot see the advantage to be derived from such efforts, believing that we have in our native grapes a stock which, with the proper treatment and gradual improvement, will make just as good, if not better, wine-grapes than most of the European sorts. Our American varieties have been already introduced into France, and particularly, the Norton's Virginia promises much in that country. The excessive, rampant growth of the best American varieties, and their peculiar strong flavor, is a sign that they are nearer yet to the state of wild vines than to that of cultivated vines. Not before that oftentimes uncontrollable growth of the vines is overcome, or, in other words, not before the habit of the vines is more dwarfed, and the disagreeably strong flavor of the grapes is mitigated, can we say that we have approached the state of perfection.

Much has been done in the last ten years towards improving the American varieties of grapes, but the great difficulty is that those men who are capable of working that question out cannot afford to spend their time and money for experiments; and those which are made in the experimental garden of the Agricultural Department at Washington, though excellently guided by the efficient superintendent, William Saunders, Esq., do not answer the requirements, the situation of these gardens in the centre of the city of Washington not being suited for the purpose.

The books on grape culture published in the United States, and the lists of nurserymen, represent such an enormous number of different varieties that those who want to plant vineyards, without having a knowledge of the matter, find it very difficult to make their choice, though the number of varieties which are of any value, and particularly for making wine in Virginia, is exceedingly small. Many grape growers were, in consequence of that calamity, misled to plant too many varieties, and have now an experimental grape patch instead of a vineyard. A very extensive and lucrative business is constantly carried on in the Northern States, at the expense of the

credulous grape growers, with the introduction of new varieties. I know of a man who made in that way a considerable fortune, and who had always a new variety in readiness as soon as the worthlessness of that variety which he introduced last was found out. I said elsewhere that the varieties of Northern origin are, without exception, not suitable for making wine in Virginia, and I recommend only a few of them as table grapes, and those mostly on account of their earliness. These are the Hartford Prolific and Ives' Seedling, the Delaware and the Concord.

The *Hartford Prolific* and *Ives' Seedling* are very foxy and inferior in quality, but, being the earliest grapes we have, are very profitable as table fruit.

The *Delaware* is decidedly one of the most delicious grapes, and is not excelled by any for table use, though the bunches and berries are very small. It is not a profuse bearer, needs rich soil not much exposed to the sun, and requires careful cultivation. Although the Delaware grape is very rich in saccharine matter, I cannot consider it a good wine grape on account of its earliness and its want of acids in proportion to its contents of sugar. This is the reason that Delaware wine lacks the freshness so much valued in white wines, and does not keep well.

The *Concord* is only valuable as a table fruit on account of the size of bunches and berries and of its fine appearance. It is healthy in most all localities, and an abundant bearer, but of no value for wine on account of its inferiority in all respects. Some men who pretend to know all about the wine business pretend to make claret wine of Concord, but they certainly do not know what claret wine is. Claret is a wine which has the peculiarity of acting warmly on the stomach without inflaming the blood and irritating the nerves, and is exclusively raised in the Department de la Gironde near Bordeaux, France, of a black grape called "Cabernet." No wine has ever been made in any other part of the world, and is likely to be made, the character of which has the slightest similarity with claret, and we have in Virginia no variety of grapes, no climate, and no soil to produce a wine of that character. In other parts of France, in Germany, and in Hungary red wines of very superior quality are made, and similar wines can be made in Virginia, but of entirely different character from claret.

Among the large number of varieties there are only four which are fit for making wine in Virginia, namely: the Catawba and Herbemont for white wine, and the Clinton and Norton's Virginia Seedling for red wine. There are some other varieties which seem to be good wine grapes, as the Baldwin's Lenoir, Devereux, and others, but their value is not sufficiently proved yet, and I doubt if any of them are superior to the Norton's Virginia.

The *Catawba*, a native of North Carolina, was the first variety fit for wine introduced in this country, and only since its introduction the manufacture of wine was attempted with a prospect of success. It is a good table grape and a very superior wine grape, and is not

surpassed by any other grape for white wine. In many localities that variety was very much injured by mildew and rot, and its cultivation was therefore abandoned; but in suitable localities, and with a judicious treatment, it is as healthy as any variety. Indeed, the healthiness of the Catawba in a certain section of the country is a reliable sign that this section is adapted for the cultivation of grapes in general. Here, on Rockfish, the Catawba is healthy even in inferior situations, and I do not hesitate to plant it largely in spite of the failures experienced in other less favorable localities.

The *Herbemont* is a variety which promises highly, from the peculiarity that the berries are full of juice, with hardly any pulp at all. Husman, for that reason, very properly calls them "bags of wine." I have not had the chance yet to observe that variety in a first-class locality, but I can nevertheless recommend it highly. It requires rich mountain soil and, on account of its late ripening, a warm and much sheltered locality.

The *Clinton* makes a very good red wine of the character of the lighter grades of Burgundy (made of a grape called Jineau) or Hungarian wines. It is only objectionable on rich soil for its excessive, uncontrollable growth, but it is the best and most thankful variety on poor land.

The *Norton's Virginia* is what its name indicates, the wine grape of Virginia. The wine made of it is of the character of the heavier grades of red wine of southern France, Spain and Portugal, and I am sure that with judicious treatment a wine can be made of it which comes near to port wine. Our rich mountain soil of a southern exposure is best suited for it.

[For the Southern Planter and Farmer.]

SWEET POTATO CULTURE.—PARTICULARLY THE "HANOVER."

Passing over the several varieties, so far as description is concerned, the demand for each kind varies. In New York, Delaware potatoes are quoted at one dollar per barrel over the Virginia and New Jersey sweets, and yet they all seem to be alike. A short round potato is much more desirable than long stringy ones; and a bright yellow, free from specks, obtains the best price in any market.

As to soil, a sandy loam is best, and stiff clay the worst for any variety of sweet potatoes. To prepare the land, it is half the crop to be put in clean land; even a clover and pea fallow has often failed to produce potatoes. During the winter the pine trash, or tags, are raked up with the *hoe*, gathering as much mould as possible. If the trash alone is raked up, the land will become too sandy by constant application. Five years is sufficient to continue planting in the same ground, otherwise the land becomes what is called "potato sick," as it loses some of the ingredients to make the potato. The quantity of trash put on the land should be according to the stiffness of the soil, heavy soils requiring the most. Most of the sweet potato crops are raised by pine trash alone; some use the potato fertilizers, but very few persons ever pay for them over the regular crop without the use of any fertilizers. If oak mould

and leaves are put on land the potatoes have more or less *black* specks, doubtless from the tannin in the leaves. If manure is used, the potatoes are generally short, smooth and good looking, and the crop matures two weeks earlier. If the land be grassy, the crop will be in proportion to the amount of grass, and will, of course, require early and constant *hoe* work—a good way to kill obnoxious grasses, but adding to the expense of a short potato crop.

As like produces like, the seed should be short, straight and smooth, and from three-fourths of an inch to one and a quarter inches in diameter, and when taken from the cellar should be put down immediately, as rough carriage bruises and the rot commences and continues after being in the bed.

The potato bed generally contains three bushels (or double beds of six) about ten feet long by four broad, facing the south. It is dug about eighteen inches deep and filled six inches with oak leaves or corn stalks, and well watered and well stamped with the feet. Manure is then brought fresh from the *horse* stable, and applied to the depth of one foot; this is covered by a good mould, generally from the yard, (not pine mould) and powdered—all lumps being removed, to the depth of four inches. In this region the beds are put down from the 10th to the 30th of March, and later *cold* beds without cover. The potatoes, generally, are put down about one-eighth of an inch apart to prevent the rot commencing in one extending to another. The open space above the mould is covered with hay, or pine trash, to exclude the air and keep all the heat in the bed, and the cover put down close, and this well packed around the edges with the same material. In twenty-four hours the heat may commence rising and careful attention should now be given, lest the heat be too great. If the weather is good the bed should be opened about 9 A. M. to the warm sun, and closed again at 3 P. M. If above a mild warm heat, water should be applied daily for a week or ten days, and if very great, holes should be made by a stake—put down every twelve or fourteen inches apart. When the plants are about three or four inches high and the weather warm the first plants can be drawn carefully, one at a time, with the right hand, and the left holding the ground firmly to prevent the potato being drawn out. In five weeks from the putting down of the beds the planting should commence, in order to allow room for the second and third growth of sprouts, planting after each shower during the month of May and to the middle of June, and on northern slopes of land to the 1st of July.

The ridges are thrown up from three to three and a half feet apart, and just before planting the ridge is raked down with a hoe or rake, or better still, by a piece of scantling two by three inches and six feet long, drawn by a horse walking between two rows. The marking off may be done by a boy with a forked stick, the points twenty inches apart; or the distance may be guessed at by a good dropper.

The hand is better than a dibble or anything to set with, and can be done more expeditiously by boys from twelve to sixteen years of age than by grown persons, as they are more supple and have less bending of the back.

The cultivation should be done with a good cultivator—hoe work; and at the last working the vines are thrown over on each side alternately. If there is no disease or insects the plants grow off at once. If the cut worm, or any other insect is present, replanting is necessary. If the

black rood is perceptible the sprouts should not be planted. Sometimes there is no appearance of this disease in the beds, but becomes apparent in the field; some persons ascribe the disease to overheat in the bed, others to damp cold weather, but there is nothing definite about the cause.

The potato generally grows about one inch in diameter a month, and sometimes larger potatoes are dug by the first of September to obtain higher prices. The yams grow faster, but do not sell as well by thirty per cent. In this region from the 16th to the 26th of October the bulk of the potato crop is dug, and averages, according to the fertility of the soil and the proper cultivation of the vines, from seventy-five to one hundred and fifty bushels to the acre. The *keeping* of the crop is reserved for the next number.

C. M. CULLEN.

Hanover county, Va.

[We have a note which we will submit with the promised article on "Keeping."—ED.]

TUCKAHOE FARMERS' CLUB.—PUTRESCENT MANURES.

To-day, November 11th, we assembled in goodly numbers at the splendid home of Mr. Thomas Branch. As to that dining-room entertainment, over which we lingered, I am forbidden by the Club to speak, as fully as we all felt.

Major Noland, of Loudoun, and M. P. Handy, editor of the *Enquirer*, were with us as invited guests.

The subject of Putrescent Manures was then introduced.

Major Noland's views being invited, he at once took the ground that a farmer could not afford to haul out barn-yard manure when commercial fertilizers could be obtained; that the cost of drayage was the great impediment and difficulty in the use of putrescent manures; and that, considering this heavy expense, this manure would not pay. Major Noland's idea seemed to be, that you had best feed your cattle where their manure is most needed, and not to haul out the manure itself from the farm pen. Further continuing this discussion, it was contended by Major N. that this manure, thus bulked for hauling, lost its volatile matter; that it is not valuable, the greater percentage being water; and that plaster would not prevent the escape of ammonia from it, because not dissolved.

Professor B. Puryear (our newly-elected member) contended that it was soluble when thus applied, because the moisture from the atmosphere, rains, &c., rendered it so.

Our honorary member, Mr. James A. Cowardin, was the first to gain the floor, and, but reflecting the views of the other members, put his and their veto upon this doctrine. The concurrent view, in opposition to Major Noland's theories (so well elaborated by Mr. Cowardin, Mr. Robinson, Dr. Perkins, and others), was that we should husband every pound of this valuable barn-yard manure; we should compost and make as much as we possibly can in our farm pens; we should haul all that we judiciously can; if we can protect this putrescent manure from the weather, apply plaster to preserve the ammonia, and every day that we can go upon our lands haul it out and apply at once. While commercial fertilizers have their use in the hands of the

intelligent farmer only, and is a valuable auxiliary to the raising of grasses (and it never should be applied without following its application with grass, as the retentive power), still putrescent manures are most lasting and valuable.

Apart from these considerations of the Club generally, as I understood, Mr. Cowardin urged forcibly the police regulations of the farm: the cleanliness and neatness, and the husbanding of all the resources; removing all the refuse from and around your homes to the farm pen and compost bed; and then, if the farm is too big to haul it far away, put it not far from the house and where it will do the most good.

Your reporter could not understand this "heavy drayage expense," upon which Major Noland relies as the basis of his views; for this work is done by us in the winter, when our horses and hands have nothing else to do, and they must either do that or grow fat in idleness. Surely, we can't hire out our teams at \$3 or \$4 per day. Then how does it become an expense to us of that amount each day when we haul manure?

Mr. Barböur, in his recent fine address before the State Agricultural Society, clearly and graphically described the disastrous effect upon this State by the introduction of that once-captivating but insidious enemy, guano; not only paralyzing the industry of the active, practical farmer, but with its stimulating effect, not only upon the land, to its detriment, but also upon the expectations of the farmer—then he had the ready and royal road to speedy fortune now found—and the sad result is now demonstrated in that Eastern Virginia is now a barren desert compared to its once happy, luxuriant fertility.

If we take this *much-modified* extract, known as "commercial fertilizer," from our experienced middle-men and druggists (as suggested by Major Noland), let us take it only under a good doctor's direction and follow it up closely. For instance—as a prudent man would take his brandy.

Yours,

J. A. LYNHAM, *Reporting Secretary.*

[For the Southern Planter and Farmer.]

"DEBT AND ITS CONSEQUENCES."—"HOW SHALL WE RID OUR FIELDS OF SEDGE-GRASS?"—PROCEEDINGS OF SMYTHE COUNTY FARMERS' CLUB.

The December meeting of this Club took place at the residence of Capt. Jno. P. Sheffey, in Marion—President Jno. M. Preston in the Chair. Roll call—Present 11, absent 6.

Committee for examination of farms visited last month being absent, no report was read. The Committee was ordered to be continued.

Owing to inclement weather, the farm visited to-day was not examined. The Committee was appointed and instructed to make report at the next meeting as to its condition, &c.

Dr. C. H. Baker, who was appointed at the last meeting to select a subject, offered an essay on "Debt and its Consequences," which was read by the Secretary, and most heartily approved by all present.

ESSAY.

The farmer who owns his land, is free from debt, and has tolera-

ble improvements, cannot realize the full meaning of the term "hard times." His situation is one of comfort and independence, and stands in striking contrast to the corroding care and life-sapping anxiety incident to a city business.

As a rule, the farm does not afford the means of extravagant living, but the true pleasure of the vocation is derived from its intimate relation to nature and the possession of all the rational enjoyments of life. The rock, upon which farmers split, is *debt*; it is, to him, a curse, more universal and more disastrous in its results than all causes combined. The occasion for "going in debt" is two-fold, either improper, and hence unprofitable farming; or a morbid desire to live, what may be termed *fashionable*, and beyond our means.

The first results in a disproportion between the products of the farm and the necessary and proper expenses of living.

The second involves a demand for more money than it is possible to realize from the farm and its operations.

Now the result in either case is, the farmer is soon burdened with indebtedness, which entails untold anxiety upon himself and family, and after a longer or shorter struggle, ends with the sale of his property at a great sacrifice, or perhaps he takes shelter under bankrupt or homestead laws, thereby defrauding his creditors of their just dues.

How then shall we meet this question? It is one of vital importance to the farmer, to the State, and to society. I propose to answer it by three propositions:

1st. The farmer must free himself from debt at once. If he can do this by strained productions of his lands, (I mean by an unusual area of crops) for one or two years, or by heavy sales of stock on hand, coupled with the most rigid economy, why, I say, let him adopt this course; this will apply, however, only in those cases where no great amount of indebtedness exists. If this course is not open, the only alternative left is to sell whatever amount of land is necessary to free the remainder from the incubus of debt, for I maintain that under the present order of things, this will be better than to hold on to large farms and pay exorbitant rates of interest on borrowed money, with costs on judgments, &c., together with the thousand anxieties and vexations incident to this state of thing; and after spending the best years of his life in an unequal struggle, be forced at last to yield up his property for sale at half its value. No man in this country can afford to pay twelve per cent. on money invested in land, and the farmer, who is in debt, is placed at a very great disadvantage in the cultivation and improvement of his farm as well as in the sale of his products.

2d. He must bring his lands into the highest possible state of cultivation, in order to make every acre yield the greatest amount, and thus realize the largest net income practicable. We deem that no argument is needed to establish the truth of this proposition.

3d. It is our sacred and binding duty to live within our income, be it great or small.

I consider it to be our privilege and duty to educate our children to clothe them in satin, "purple and fine linen", and to "live on the fat of the land," *provided that we are not in debt*. But if we are in debt, it becomes our duty, however sad and painful it may be to us, to deny ourselves and family everything except absolute necessities, until our creditors are discharged.

But, by approved culture, reasonable economy and judicious financiering, the farm will yield us a comfortable living and requisite means for educating our children; but luxurious living is not practicable on ordinary farms and must be foregone.

We conclude that every man has the undisputed *right* to supply his table, clothe and educate his family, and supply himself with every luxury, fancy or taste may require, provided, always, that he has the surplus means wherewith to obtain them: But as a question of social and political economy, he has no moral right to buy more than the necessities of life, whilst in debt.

If every man in the State of Virginia would act upon this principle, the wail of financial distress that we now hear wherever we go, would speedily die away upon our shores, and the twin-sisters, peace and plenty, would enter and abide in every household.

Smythe county, Va.

C. H. BAKER.

The subject for general discussion coming up, the President called Mr. John B. Smith to the Chair and read the following essay on "How shall we rid our Fields of Sedge Grass?"

ESSAY.

The question for discussion is one I hope to have fully and freely canvassed. It is one in which every member, or nearly every member, of this Club is interested. We are all, more or less, compelled to keep up our pasture lands, and "broom sedge" is every day encroaching upon these lands, and rendering them less able to support the proper number of cattle.

A few years back the farmers of this section, when they succeeded in clothing a field with the soft nutritious blue grass, indigenous to this section, rested well satisfied that for years to come they had a pasture upon which they could depend—one that would amply reimburse them for the labor expended in clearing it up, or the expense incurred in seeding to clover; but this state of things seems to be changing. Though we may have a heavy and apparently impenetrable sod in our pasture lands, and even in our meadows, yet we dread to see them dotted over with purplish, brown looking spots, indicating that an enemy is upon us. Well may we then endeavor to discover some means by which we may prevent this pest from spreading. I am sorry to say I have not succeeded in getting much information on the subject from agricultural books or papers, and I know not where else to seek for knowledge on such a theme. The plant we are in the habit of calling "broom sedge" or "sedge grass" is really not a "sedge," but a true grass, and, to a limited extent, nutritious, while "sedges" are grass-like, but innutritious. The grass, then, of which we wish to rid our fields belongs to the genus *Andropogon* or *Beard grass*, which embraces several hundred species.

The species we are most interested in is known by the euphonious botanical name of *Andropogon Virginicus*, and, notwithstanding all that has been said in its favor, it is a "curse" to Virginia. All the authorities I have been able to examine give but one certain means of exterminating it. They all recommend the plough, nor do I suppose any one of us doubts the efficacy of this means.

I am convinced it is from some exhaustion of the soil. New lands rarely produce it. Formerly, it was seldom seen in this country except in worn-out fields. We know that all plants absorb or assimilate the constituents of the soil in which they grow; may not, then, the continu-

ous cultivation of our lands, or the too severe grazing, have taken from them some constituent requisite for the production of the finer and more nutritious grasses, and thereby cause the earth, in order to clothe itself, to germinate the seed of the coarser grass, that requires but little if any of the exhausted constituents.

It has been said that its growth is produced by the acidity of the soil. If this is true, and I am inclined to think it is, plaster, lime, salt or ashes used in sufficient quantities when setting the land in grass, would, I think, remedy this defect in the soil. I do not believe that any of these will destroy the plant, unless used in such quantities as would destroy all other vegetation.

I also believe that used as a top-dressing to grass lands, these fertilizers will prevent the ingress of obnoxious weeds and undesirable grasses. Another preventive I will suggest, and which, I suppose, will not meet the full approbation of the Club—it is, sheep grazing.

Sheep are the best scavengers a farmer can put upon his lands. They will do well on weeds and grasses that other animals would starve upon. [I may say I know this from experience.] And I am told by men of intelligence and observation that they will fatten on "broom sedge."

We all know that sheep scatter their manure more evenly and over a larger boundary than any other animal; therefore, if a sufficient number are put upon a field of "broom sedge" in the early spring, they would in the first place prevent its seeding, and, secondly, they would so well manure the field that other grasses would spring up, and finally would cover the land, fitting it for the grazing of more remunerative stock.

Another remedy was suggested to me by a friend of Albemarle. His idea was, that if this grass was mowed two or three times each year for two years, (he believing it to be a biennial), it would be destroyed. But I think (and find I am sustained by a recent writer in the *American Agriculturist*) that it is a perennial plant. If this is true, repeated mowing would not eradicate it, but might, on the contrary, serve to thicken it on the same process as it does timothy. This grass is, without doubt, to the graziers of this section an infliction much to be deplored. No one can deny that it seriously injures the grazing interest of this country, and I do most sincerely hope that some means will be found to arrest its career.

In other parts of the State, where it is more difficult to raise the cultivated grasses, it may be an advantage rather than injury, in protecting the earth from the burning heat of the sun, and furnishing a coating of green manure to turn under when plowing for wheat, and, perhaps, adds somewhat to the production of that grain in the eastern and middle portions of the State. More than once have I heard it spoken of as a friend—and not as we look upon it, an enemy. Some years since a writer in one of our agricultural papers claimed that the best and sweetest butter he had ever tasted was made from cows grazed upon the "broom sedge" fields of Louisa; and I have heard a lady, who has lived in the far-famed "Blue Grass" region of Kentucky, and latterly in our own much loved Southwestern Virginia, say she had never seen better butter or drank sweeter milk than that produced from the young broom sedge of Halifax. Let them enjoy what they have; we know that "blue grass" is better.

JOHN M. PRESTON.

This essay gave rise to some discussion.

Capt. Sheffey believed that "sedge grass," or "broom sedge," as

it is sometimes called, found its way into our lands because they had lost some portion of their fertility for other grasses. He had sown a large quantity of lime on a small space occupied by the sedge grass, and found it was thinner afterwards. He had also tried pulling it up, with the hope of exterminating it at once, but did not think he had accomplished much by that method. The plan suggested by the essayist, to pasture sheep upon it, he thought not at all practicable, or likely to be of much service in destroying it. If its growth was early in the spring, these animals might eat it, but, coming on late in the season, when other grass is plentiful, they will not feed upon "broom straw."

Capt. D. D. Hull did not believe that sheep would graze it sufficiently close to kill it. The amount or extent of grazing necessary to kill the "sedge" must, necessarily, kill every other grass as well, and thereby we rid ourselves of our main help. We should seed our lands heavily, and secure, as early as practicable, a firm and compact sod of other grasses, so that the "sedge" can find no resting place—no spare earth for taking root. If it comes mainly from the seed, we might do something by mowing before the seed ripens; but coming, as it does, most probably, from seed and root both, we will find it a very difficult task to stop it.

Mr. Goolsby thought it best to plow deeply, and reset in grass.

Mr. C. W. Beatie suggested that if we put sheep where there is nothing else to feed upon, they must eat it, of course; but when the set is so strong as to exclude everything else, thorough cultivation seems to be the most reliable and speedy means of stopping its growth. If its increasing prevalence in this country is due to a want in the soil of any particular constituents which has been lost we might, by analyzing the soil of various fields when it is most luxuriant, find what is deficient and supply it artificially, thereby restoring the land to its original fertility for other and better grasses.

Mr. A. F. St. John was firm in the opinion that the best, if not the only, plan was to cultivate the land and destroy it at once. We know that it is gaining upon us every year with an increased ratio, and however painful it may be to us to plow up the pet blue grass or other sod lands, better this than contend in an unequal struggle, and rely upon the doubtful plan of sheep grazing, or the more tedious and less definite one of antidoting the plant with artificial manures. We know the plow will kill it for a time, and sooner or later this will be our refuge.

Subject for discussion at next meeting: "At what age do Cattle Pay Best?"

Place of meeting: Mr. J. S. Akers' residence.

JNO. L. APPERSON, Sect'y.

A good word is an easy obligation, but not to speak ill requires only our silence, which costs nothing.

ABOUT FOURTEEN DIFFERENT KINDS OF GRASS.

Mr. L. A. Morrell read the following paper at the last meeting of the Farmers' Club of the American Institute :

I have collated information relative to fourteen kinds of grass, chiefly from the work of that world-renowned scientist, Sir Humphrey Davy, on "Agricultural Chemistry." Many of these varieties I have no personal knowledge of, but doubtless the remarks appended to each are entirely reliable. I have given to each the common name, and also its botanical name.

The sweet-scented vernal grass (*Anthrose Anthum Odoratum*) is found on almost every kind of soil, and is a true, permanent pasture grass for general purposes and for early appearance, but it is not liked by sheep, who will scarcely touch it if there is any white clover or meadow foxtail.

Short blue meadow grass (*Poa cerulea*), common to the drier parts of peaty meadows; nutritious, but not sufficiently productive for the purposes of hay. Sheep and cattle are exceedingly fond of it.

Meadow foxtail (*Alapecurus pratensis*).—This flowers about May 20, and seeds ripen about June 24. On a clayey, loamy soil, at the time of flowering, it will yield about one and a half tons to the acre in our country, every pound yielding two and a half drachms of nutritive matter. The aftermath affords four drachms from every pound. Sheep are fond of this grass during May and June.

Rough-stalked meadow grass (*Poa trivalis*).—In rich, moist soils and sheltered situations it is highly valuable, but on high and exposed ground its produce is small. It flowers about the middle of June. It is very nutritive, and sheep are exceedingly fond of it. The nutritive matter at seed time is five and a half drachms to the pound. Its value is not sufficiently appreciated.

Kentucky blue grass, known as June grass and spear grass (*Poa pratense*), supposed to be indigenous to this country. It is one of the most nutritive of grasses, either for pasture or hay, but more especially the former. On rich soils, particularly those of a calcareous nature, it is one of the most valuable that can be cultivated. It is this variety which gives name to the far-famed "blue grass" pastures of Kentucky and the fertile valleys of Ohio.

Sheep's fescue (*Festuca ovina*).—The produce is comparatively small and the proportion of nutriment is about three drachms to the pound, but sheep are exceedingly fond of it.

Cock's foot or orchard grass (*Dactylis glomerata*).—This is an exceedingly productive and nutritive grass, affording in the flowering time five, and when the seeds are ripe seven, drachms to the pound of nutritive matter. The leaves of the aftermath are very succulent. It is very valuable for sheep pasture, and all kinds of domestic stock are very fond of it.

Welsh fescue (*Festuca Cambrica*).—Sheep are as fond of it as the common sheep's fescue, while it is more productive and succulent. It is most valuable when the seeds are ripe.

Narrow-leaved meadow grass (*Poa angustifolia*) flowers at the end of June, and the seed perfects at the end of July. On account of its early and rapid growth it is very valuable for permanent pastures, and sheep like it.

Hard fescue (*Festuca duriuscula*).—This is one of the best of the finer or dwarf-growing grasses. It is valuable for the feeding of sheep. It

flowers about the beginning of July, and at this time it affords seven drachms of nutritive matter to the pound.

Meadow fescue (*Festuca pratense*).—It constitutes a very considerable portion of the herbage of all rich natural pastures, and makes excellent hay. It is much liked by cattle, but sheep comparatively neglect it. At flowering time it yields three-quarters of a ton per acre.

Rye grass (*Lolium perenne*).—Mr. Sinclair, a distinguished Scotch agriculturist, says of this grass: "Sheep eat it when it is in the earliest stage of its growth in preference to most others; but after the seed approaches perfection they leave it for almost any other kind. A field in the park at Woodburn was laid down in two equal parts, one part with rye grass and white clover, and the other part with orchard and red clover. From the spring until midsummer the sheep kept almost constantly on the rye grass, but after that they left it and adhered with equal constancy to the orchard grass during the remainder of the season." Notwithstanding this high recommendation it is objected to, as it exhausts the soil.

Fertile meadow grass (*Poa fertilis*).—In early growth, the proportion of nutritive matter and the nutritive quality of the aftergrowth, this grass will yield to few. It is an excellent meadow grass, combined with others.

Timothy grass (*Phleum pratense*).—This is of the greatest value for permanent pasture, mixed with other grasses, on account of its early herbage, its great productiveness, and the superior proportion of nutritive matter which it contains. A short time before the seed is ripe, when it should be cut, it affords no less than twelve and one-half drachms of nutritive substance to the pound. It is too well known to need further comment.

Of the clovers, the most valuable variety for general purposes is the common clover (*Trifolium pratense*). Sheep eat it sparingly before the first flowering, if any other grass abounds. But the aftermath, or rowen, they eat greedily, and it is exceedingly nutritious to all domestic animals.

White clover (*Trifolium repens*).—This grows spontaneously on dry uplands, after they have been manured with gypsum or with bog marl. It is a very sweet grass for pasture, but not productive. Sheep eat it readily when mixed with other varieties.

A few words more will close my paper. Lord Bacon says all our knowledge is derived from experience, and another wise man has said that "there is but one way to knowledge of nature's works—the way of observation and experiment;" to which may be supplemented that experiment is the offspring of enterprise in agricultural pursuits and the stepping stone to wealth. I can recall the time, when a practical farmer in Western New York, when experiments with new varieties of wheat and other crops superseded the old, and the result was an increase in profits. I can also recall the time when orchard grass was known only by name, whereas experiment added to experiment has proved it to be second in value to timothy. Fair trial in certain localities, where soil and climate are congenial, may result in proving one or more of the other varieties of grass I have noticed equally valuable. I will conclude by saying to the American farmers, let enterprise, which involves experiment, be ever your watchword.

"The proper study of mankind is man," says Pope; but the popular study is how to make money out of him.

CLOVER AND TIMOTHY.

The common practice of many farmers in sowing clover and timothy seed together is objected to, because they are not ripe and ready to cut at the same time. F. R. ELLIOTT advises to sow corn with orchard grass, as the two are better suited to each other for hay. Without saying anything against this recommendation, the growing of clover and timothy on the same soil has some good arguments in its favor.

First, we premise that clover is, or should be, in nearly every case, the important crop, and wherever timothy is grown, it should be entirely a secondary consideration. There are only enough exceptions to this to establish its validity as a general rule. Considering that we are aiming at mostly clover, there are very good reasons for adding a little timothy. If the aim were otherwise—to make timothy the main crop, as may sometimes be advisable on rich river bottoms, where hay is grown for sale—the addition of even a small amount of clover would be a decided disadvantage. To bring the highest price in most markets, timothy hay ought to be as pure as possible. Clover in a field of timothy grown for market is simply a weed—a useful and beneficial weed for the soil, it is true, but none the less detrimental to the value of the crop.

When clover is made the main seeding crop, the addition of a little timothy is not at all objectionable. The farmer need not delay cutting his clover a day on account of the timothy. Cut the clover when the blossoms begin to open, just the same as if there were nothing else on the field, as in point of fact with a good catch of clover there will be little else the first year. Early in the season the young timothy will be small and immature, but what there is will dry much more rapidly than the coarser-stalked clover and aid in curing the whole into hay. Farmers who grow pure clover, are every year plagued by large quantities heating and sometimes rotting in stacks and mows, despite every care in curing. A little timothy mixed with the clover quickly becomes thoroughly dry, and aids in absorbing superfluous moisture. Farmers who have dry straw can use it between layers of clover hay in the mow for the same purpose, and with excellent effect.

If timothy is sown in the spring with clover seed, it will not the first or second seasons interfere in the least with the clover. The farmer will get just as much clover as if there were no timothy, and the additional grass will be so much clear gain. If the field is to be plowed the second season, the clover will have benefited the soil just as much as if it alone occupied the soil. The timothy grass and roots only occupy spaces that would otherwise have been vacant or filled with weeds. If, however, the timothy was sown the fall previous to sowing clover seed, there is danger that will occupy the land and less clover will catch. In all cases where a crop of clover is desired, six quarts or a peck of clover seed should be sown, and the timothy seed, whatever the amount, be put in extra.

If for any reason the field cannot be plowed after the first clover crop has been taken off, the timothy will then come forward and occupy the land. Sometimes in very dry seasons the clover catch fails entirely, and then it is important that land seeded one or two years before should be kept in grass, and then the timothy with clover comes in good play. Clover is a biennial, dying out after the second year, unless under very exceptional circumstances. Timothy may not be a profitable grass for

farmers with arable land, but is a great deal better than nothing. It is also better for fields soon to be plowed than blue grass, which will inevitably gradually creep in where dying clover has found no better heir to fill its place. Hence, we advise farmers, when sowing clover this spring, to add a little timothy, unless they are quite certain that the clover is to be plowed under the year following. Even then it will do no hurt.—*Rural New Yorker*.

[For the Southern Planter and Farmer.]

THE USE OF PLASTER AS IT AFFECTS THE PHYSICAL CONDITION OF THE SOIL.

Mr. Robert Beverley's paper, contained in your January number, induces me to offer you my views and experience on the use of gypsum. For thirty years I have been using sulphate of lime on a granitic soil in the county of Fauquier. Like Mr. Beverley, "I have seen the most marked results on clover and sod." Before entering on the subject, I desire to say that while so much attention is being bestowed on the chemical condition of the soil, we are in danger of overlooking the importance of the physical condition in connection with vegetation.

Vegetables may be considered skeletons of carbon which have condensed around the carbon atoms the elements of water and air. We must recollect that the crust of our globe consists almost wholly of the cinders of the great primeval fire; our granite, sandstone and limestone rocks are the cinders of burnt materials, and the atmosphere is the reservoir of the oxygen left after the general conflagration—left because there was nothing more to burn; for whatever of combustible material—wood, coal or metal—now existing on the surface of the earth has been recovered from the wreck of the first conflagration by the action of the sun's rays. One-half of all known material consists of oxygen, and on the surface of the earth combination with oxygen is the only state of rest. In the process of vegetable growth, the sun's rays, playing on the vegetable leaf, have the power of freeing from this combination hydrogen and carbon, and from these are formed the numberless substances of which both vegetable and animal organisms consist. Water being endowed with such immense solvent powers as to be absolutely necessary to a great number of chemical changes—bearing these facts in mind, we can well understand how important it is for the soil to have such a physical condition as is necessary to render it permeable to carbonic acid gas, to water and the nitrogen and oxygen of the atmosphere as well as to light and heat; for the soil is but a delicately varied formation, yielding to the sunlight, the dew, the storm, and other influences, those homœopathic supplies so indispensable to plants, and it is under these influences the soil yields such supplies to vegetables as enables them to give off oxygen, fix carbon, and transform *mineral* subjects into *organic*.

Entertaining the opinion that the physical condition of the soil is the cause, in great degree, of the more marked effects upon clover

and sod than when we apply gypsum to other crops. I propose, as the means of bringing out my views, a paper "on *Gypsum* and its use as a fertilizer," as well as another paper on "*Carbon* and its intimate relations with vegetation. I might as well say here that, in preparing these papers, I often use the language of the authors consulted, when it happens to suit my purposes.

Alexandria, Va.

R. C. AMBLER.

[For the Southern Planter and Farmer.]

ELECTRICITY IN FARMING.

"*How to Make the Farm Pay*" is the title of a book lately published. It is a good book, but does not suit Virginia farmers. When I accumulate a million and a half I shall try to practise its precepts. The majority of Virginia farmers can be classed under two heads—electrically speaking—the positive and negative farmer. The first thus addresses us: "We need **PERSONAL** attention to our vocation as farmers. Watch, superintend, and help with a free hand in all the heavy as well as the light work of the farm; attend to your own stock, and do not neglect the little leaks; save everything, and sell anything that can be spared; keep your money in your pocket, and let fashion and display wreck its own vain votaries; don't founder your best interests on the rock of excessive fertilizing; LOOK at these manipulated manures, and haul out on your land, ditch banks, fence corners, leaves, ashes, straw, weeds, or anything that will change the texture or tone of the soil; sow clover, and fallow clover, peas, or any other green crop; prepare your soil thoroughly and use only good seed. Give great *personal* attention to the garden and orchard; sell its products; trust not the worthy hireling. Pay cash and let debt be as a stranger. Keep only good stock, and improve it yearly. Sell your riding-horse, for this is a luxury we poor Virginia farmers cannot afford. Catch the spirit that the master must be *at* everything and *in* everything; then positive thrift will perch triumphantly upon our tattered banners. Yes, help your brother farmers with your experience, but don't murder your reputation as a sensible man by writing too much. Try some of this advice, and the high perpendicular (arched) rocks at Clifton Forge will soon be visible to our plodding tow-path drivers."

The other side is not so pleasing. The first attribute of the negative farmer is indifference to all work; rises late, and trusts his feeding to others. His plans for the day are not laid off in a systematic way; blunders and scatters his hands in every direction—from one job to another; is not specially interested in any department save the "find fault" roll; never sees a collar tied or examines the ox yoke; consequently his teams have sore shoulders and scalded necks; cattle, hogs, &c., are left unsheltered and uncared for, save at periodic bad spells of weather; manure trickles away, and his straw rots on the wheat-yard. Special care is only paid at intervals to the tobacco, wheat and corn crops; the so-called minor products are wasted. His seat is in the saddle, riding through the neighborhood complaining of bad seasons and hard times; if able, dresses fine and drives a good team on Sunday. He is never satisfied, and is constantly on the lookout for "easy methods and short cuts."

We leave this negative. He is unhappy, for he is in debt.

Louisa, Va.

J. G. B.

ON GRASSES ADAPTED TO VIRGINIA, WITH A STATEMENT OF THE KIND OF LAND PROPER TO EACH VARIETY, AND THE BEST MODE OF PREPARING THE SAME; ALSO, THE MANNER OF HARVESTING EACH CROP—A PREMIUM ESSAY.

It was some years ago the prevalent opinion that the soil and climate of Tide-water Virginia were not adapted to the growth of artificial grasses. Experience has proved it to be very erroneous. Where good judgment has been used in sowing, and proper care has been taken of the crop, and the grass has been protected from excessive grazing, good and abundant hay has been the result, and fertility has been restored to the soil. No doubt whatever exists as to the Piedmont and Valley lands.

Experience shows that red clover is the grass best adapted to our lands, and that it is the most fertilizing. It grows best in a dry soil. None of the artificial grasses will flourish in a wet one. One gallon of the seed should be sown to the acre as early in the spring as may be deemed safe from freezing weather. The ground will be found to be checkered with numerous cracks at this fittest season to receive the seeds, which the first rain will cover. Where the land has been sown with clover for a series of years, half a gallon to the acre has been found sufficient, but on sowing lots or small fields for cutting or grazing heavily, two gallons, and even two gallons and a half are recommended by skillful farmers. When stiff, *glazed* wheat land is sown, the harrow, or the rake, is necessary to loosen the soil for the reception of the seeds—else, they bound into the water furrows, or lie exposed to sun and frost, and perish after vegetating, being unable to obtain secure root. Wheat is not injured; on the contrary, it is much improved by the process. When sown upon oats, the land is in fine tilth for clover. Experiments have been tried of sowing in the autumn—some of which have been successful, but failed more frequent. The seed is commonly too costly for hazardous trials.

To insure the growth of clover, a liberal use of plaster-gypsum is indispensable. In a rich soil and with a favorable season, clover *may* grow without the aid of plaster; but it is likely to assume a yellow, sickly hue, even if it survive the summer's sun. In sowing, it is an excellent method to wet the seed thoroughly, and to mix with it double its quantity of plaster—a practice which is attended by other advantages besides that of ensuring a good growth—the seed is more easily sown and more equally distributed—it saves the labor of sowing the plaster after it comes up—it preserves the seed from theft, if dishonest persons are employed to sow it—and it relieves the wheat by being sown so early from the liability to rust, a danger, however, which we have never observed, though it is deemed by some farmers to be incurred. In the Valley, it is a common practice to sow plaster in the spring; and it is thought, that it hastens the maturity of wheat and protects it from rust. Twelve months after the clover is sown, it should be plastered, during moist or showery weather, with about one bushel to the acre. A larger quantity will do no harm. Early in June, the bloom assumes a brownish hue, and it is then fit for the mowing-machine, if designed for hay or for feeding green to cattle; but if sown for the purpose of restoring fertility to our exhausted soil, or of renewing its energy after debilitating crops, the most judicious plan is to leave it unmolested until after harvest, when it

is falling upon the ground and its stalks become hard. The grazing of cattle may then be permitted, though it is prudent to remove them in wet weather. Mr. Carter, of Shirley, thought this mode of grazing decidedly beneficial.

Timothy grows well in good soils, in situations low or elevated.

Herds grass appears to be indigenous with us; and it is better adapted than any other of the cultivated grasses to moist land. Orchard grass is suited to land shaded by trees—furnishes an early bite to stock in the spring, and is sown by some farmers to make hay.

Lucerne is a valuable grass. It furnishes more frequent cuttings than any other. It should be sown in drills three feet apart and cultivated. The most economical mode of raising it, is to cultivate beets or some cleansing crop between the rows of lucerne, and thus to till both crops at the same time.

Where well directed efforts have been made to promote the growth of the grasses, they have resulted in success. The delusion that Tide-water Virginia was not adapted to them, arose from observing the effects of the scourging tillage which has been practised, it is believed, ever since our noble forest succumbed to the woodman's axe. When the lands ceased to produce good crops of tobacco, vegetation was prevented or destroyed for the benefit of the corn crop—wheat followed corn—cattle and hogs were the gleaners of the wheat field, and every sprig of grass which came up during the remainder of that year and the whole of the next year, was greedily devoured by stock, which roamed in what was misnamed the *pasture field*. How unreasonable to expect that grass could grow under such a system; and yet, because it did not, the lands were denounced; farmers began to believe the oft-repeated slander, and many emigrated in quest of the grassy regions of the West. Happily for those who remain, it has been discovered that injustice has been committed; that under kind treatment and a sanative system, where the patient has been much reduced, our lands may again smile in verdure, the long legged hog may be shoved aside by the chubby breeds which yield the nice round ham, and Durhams and Devons may chew the cud, reposing on beds of luxuriant clover. This is a picture seldom seen now; but it may be realized by careful attention to the growth of artificial grasses.*

Any land possessing a subsoil of clay, is adapted to any variety of the grasses. Herds grass tolerates the greatest degree of moisture. All the rest require land well drained. A cleansing crop is necessary to prepare any of them for proper cultivation. If the crop is to be cut by a mowing-machine, the land should be made as level as is compatible with proper drainage; and the beds should be wide, where deep water furrows are required.

Meadows are essential to every good plantation. No portion of land can be employed in tillage so beneficial or profitable as in preparing a

*Dr. Archer gives forcible testimony on this subject. His farm was near Fortress Monroe, Old Point Comfort. In the 1st volume of the *Farmer's Register*, page 399, he says, "I do not hazard too much when I say that timothy, herds grass, orchard grass, tall meadow oat, feather grass, clover, and lucerne, all of which I have fairly tried, thrive as well and grow as luxuriantly as in most parts of our extensive country. For five years I have turned my attention very much to this branch of agriculture; two or three enterprising gentlemen in this (Elizabeth City) and in Norfolk county, have done the same. The charm is now broken; all acknowledge that our hay is as good as ever was imported from the Eastward; and in a few years, I hope to see our old fields transformed into profitable meadows."

good meadow, whether lowland or highland. It is capital bearing a very high annual interest. A good meadow will produce every year a crop more valuable than any of the cereals; and these are liable to many vicissitudes in such land as is well adapted to timothy and herds grass. There are few farms which have not a few acres fitted for a meadow.

As meadows often yield large crops of corn, they are planted frequently with this grain, the cultivation of which is cleansing and thus well fitted to prepare the soil for the reception of grass seeds. The beds should have at least the width of two corn rows, or eleven feet, the narrow rows being inconvenient in mowing. Two rows of corn would be cultivated on this wide bed. Where the meadow has been prepared by no previous design for sowing grass seeds, and the corn crop has been cultivated in the usual single bed, the crop should be cut close, early in September (the corn, if soft, may be fed profitably to the fattening hogs), the beds plowed double with a good rise in the centre to prevent water settling thereon, harrowed and reduced carefully to a fine tilth, and the seeds sown as early as practicable. The fitness of a soil for the sort of grass best adapted to it, is best tested by a mixture of clover, timothy and herds grass—one-third of each.* Two or three gallons to the acre will probably produce a fair growth; but the farmer had better sow double this quantity than fall below it. Thick sowing of meadows, where weeds are commonly so prolific, is the best economy; and, besides preventing the growth of weeds, it would insure a large crop for the first cutting in the following summer. Meadows are sown, sometimes, in the spring; but this season is not generally so favorable as the autumn for sowing meadows. A dry summer after spring sowing, may destroy the young sprigs—the land is then most likely to produce weeds—farmers are, commonly, more busy in spring than in the fall, and the crop will not be fit for cutting in less than sixteen months.

The meadow must be drained completely—no water should be permitted to remain on any part of it—and from time to time, all bushes and weeds should be eradicated: The bulrush is the worst pest, and is the offspring of superabundant moisture. It should be cut up carefully with the roots, or it will acquire complete possession, the herds grass and all the other grasses being unable to resist its vigorous encroachment. Besides extirpating the weeds, the meadow is best preserved by an occasional sprinkling, when the ground is frozen, of well rotted stable manure. Some writers recommend scarification, but this is a difficult, troublesome process.

Haymakers concur in recommending meadows to be mowed before the seeds are fully ripe. This period, in Eastern Virginia, is from the middle to the latter part of July.

The modes of curing hay are various. The most simple, economical and efficient plan is, to expose the grass to the sun merely to dry it—to take it into windrows in the latter part of the day on which it is cut—the following day to put it into small cocks for curing—in two days to make

*Dr. Archer condemns this mixture because "the clover was ready for the scythe in May, the other two were not ripe for three or four weeks afterwards. I consequently lost part of my clover crop." His loss would have been avoided by cutting the grass soon after the clover was ripe. The heaviest part of the first crop, and perhaps of the second, would consist in clover; and then the others will supplant it, and those adapted to the soil will take precedence. If any deem it presumptuous to differ from so skillful and exact a farmer, let him follow the Doctor's advice, and mix timothy and herds grass, or meadow oat and clover, which mature at the same time.

other cocks by reducing two into one, making them on intermediate ground, so as to remove and turn over each one; and as early thereafter as is convenient, to haul the hay to be stacked or ricked. A long sapling run under the cock, with a rope from the end of it over the cock and fastened to the other end, of length sufficient to attach a yoke of oxen, is the best and quickest way of hauling. In good weather, it is thus cured with a good fresh color and sweet flavor, and is not so dry as to be hard. If interrupted by rains and showery weather, much care is necessary in drying the grass so as to prevent mildew. If it is put up wet, it will heat quickly, even in small shocks; hence, constant vigilance is necessary to preserve it from injurious dampness; and it must be perfectly dry when it is stacked. It is a safe precaution to open in the morning as many cocks (if they are damp) as can be hauled to the stack for the day's work. The best weather must be chosen for this operation.

Meadows of good quality, well attended to, well drained, and manured occasionally, will produce from one and a half to two tons per acre each year. The least is worth from \$22 to \$30, equal to the value of from 7 to 10 barrels of corn every year, making what no meadow will average in corn for a series of years, not even in the usual rotation.*

Finally, the second growth of the meadow, termed the aftermath, furnishes fine grazing for beesves in the fall. Then comes dreary winter, when the cow, the ox, the horse, will render a daily tribute of thanks and service to a provident master for the liberal provision yielded by his meadow; and the master, when the well fattened, richly marbled round adorns his board, will renew his thanks to a Gracious God, who made cattle for man's use.

King George county, Va.

E. D. TAYLOR.

*The Farmer's Register for May, 1841, page 299, states, that Mr. Josiah Bordwell, of South Hadley, Mass., has a meadow of four acres, which produces annually sixteen tons. He uses plaster freely, and top-dresses with manure. Two crops of hay are taken from it regularly.

[For the Southern Planter and Farmer.]

THE EXECUTIVE COMMITTEE OF THE VIRGINIA STATE AGRICULTURAL SOCIETY, AND ITS PREMIUM LIST.

A contributor in the February No. of the *Planter and Farmer* calls attention to some generalities in which the Executive Committee of the State Agricultural Society has mismanaged its affairs. I propose to examine the so-called premium list and see if a little ventilation will help it.

The word premium is derived from the Latin word *primus*, meaning *first*; was intended, when used, to carry with it the idea of *excellence*. Strange to say, the human mind instinctively apprehends the idea of superiority whenever the word is used, without the aid of classical knowledge, unless it be trained in the arbitrary language and manner of doing business peculiar to this committee. It has whimsically declared *they* will have a *first best* and a *second best premium*. Let us see what may be the result of this voluntary absurdity. I once exhibited an animal at one of the fairs, took *the premium*, and came home innocently flattering myself with the vain

delusion that I had something of value to a stock raiser. The following year I offered stock for sale as the offspring of the *premium* sire at the Virginia State Fair the preceding year. The person wishing to buy, who was a stranger, took me up rather sharply by telling me that Mr. C. was advertising that his animal had taken the premium at *that fair*. With much chagrin I explained to him that I *wore the premium* of a blue ribbon and \$20, while Mr. C. was given a *second prize* of a red ribbon and \$10. Since that time I have not bragged much of Virginia State Fair premiums in *promiscuous company*.

It might be interesting to know the rise and history of this *second best* arrangement. Could it be possible that its founder *knew* that his rival would contest with him for the *premium*, and wickedly took this as a means of advertising that he had met him and given him a bloody defeat? And there was a little money given to tempt him once more to the scratch. Abolish this injustice. If an animal deserves a premium, give it him without qualification, and do not expose the owner to the risk of being suspected of claiming what another claims with some show of right. The premium list might be further improved by aggregating the money frittered away on animals of all ages, "from the cradle to the grave," and dividing it into two *premiums* for *matured* animals, one to be male and the other female, both to be mature, sound, and worth at least as much as the handsome *premium*. It has been seriously surmised "that the premium list was arranged and cut up as it is upon the principle that Wyman offers each purchaser of a ticket a prize (he knows the meaning of the word premium, and don't use it), to *draw*, unblushingly discounted without a pretense at a reason, payment postponed for ten days, when hotel bills will have sent the winner home, thereby hoping to avoid a settlement." If this be a slander, the surest and quickest way to its overthrow lay in the repeal of the whole system. Why should animals be divided into classes and sections? At the present day of civilization one variety of domestic quadrupeds (as a breeder) is worth almost as much as any other. I do not mean that a ram or boar is individually worth as much as a horse; but what I mean is this: it is just as important that the quality of the stock of sheep and hogs should be of the best as it is that the stallion or bull should be, and it takes just as much time and intellect to improve the one as the other. I maintain that the same encouragement should be held out by the Society for the improvement of one class of live stock as another. Therefore, I say give each class the same prominence before the public, and then let each individual select as bid by his interest or fancy. This is no idle talk. Because certain persons at court have a little money invested in Short Horns, is not a valid reason why we should quietly submit to seeing \$440 in prizes offered these Short Horns, a class of cattle that can thrive in but a limited district of our State, while the red Devons, that combine all the qualities of the yoke, pail and shambles, and fitted to every clime and soil, must be content with \$256. It is useless to tell us about

the prices New York Mills cattle brought; we don't want them, and don't propose to pay for what we don't want and *they haven't got*. Burn the last copy of the "Officers, Rules, Regulations and Schedule of Premiums," and waste no more of the Society's money in trying to tickle the childish vanity of a few silly men and women by advertising them for duties they never perform, and give us instead a neat, clean, moderate handbill to post conspicuously all through the country, setting forth the time of fairs, a simple announcement of premiums, and let it be known that they will be given to successful competitors at the moment of award in the presence of the assembled multitude, without discount or delay, or any other fraudulent device whereby to avoid an honest settlement. Done in this way, the great public can judge for itself as to the good faith with which justice is dealt out. If the present managers are so deep in *ante bellum* or antediluvian ruts as not to be able to carry their burden, it would be well if they hold up their hands to younger ones who are on higher and firmer ground. What the Executive Committee needs is three or four men under thirty years of age. Can room be made for them?

NOSTAW.

[See editorial department for notes on the above—Ed.]

Stock Department.

[For the Southern Planter and Farmer.]

MULE RAISING.

As your paper circulates very largely through a section of the country where these animals are used to a very considerable extent in the cultivation of the soil, I have thought that perhaps a few practical suggestions on their breeding and rearing would be of interest to your readers. I have never seen or heard any estimate of the amount of money annually paid by Virginia to other States for mules, but any one at all acquainted with the subject knows that the purchase of these necessary animals makes no inconsiderable draught upon the finances of our farmers.

Under the old dispensation, when our crops were cultivated by compulsory labor, and the care of stock was deputed to those not directly interested in its welfare, it was perhaps more satisfactory, and in some cases more economical, to purchase mature animals ready to put to labor than to rear them upon the farm. But this is now changed. As a general rule, the owner of the stock has the feeding and care of it in his own hands, and a very large number of our farmers are performing their own farm labor, with only a little hired assistance. Under these circumstances I have not the slightest doubt that mules can be economically and profitably raised. It is useless to enter into a discussion of the relative merits of horses and mules for farming purposes. It is a question which every farmer decides for himself, and the fact that the larger portion of the labor of Eastern Virginia is performed by them justifies the belief that the farmers believe them better suited to their wants than any other animal. Be this as it may, we have the fact that mules are always in demand at apparently high prices, and this alone will justify

the inquiry whether we can raise them for ourselves, or be still compelled to purchase them from others. I meet the inquiry with the assertion that the most of our farmers are in the exact condition of those in other States who breed by far the larger number of the mules that supply Virginia and the Southern States. Mules are generally bred by farmers who do their own work with the mares which produce the mule foals. In those States where mules are extensively bred almost every farmer has one or more mares, which perform their regular share of the farm work and produce annually a mule foal. Some farmers work mares exclusively and breed them regularly, realizing thus a considerable additional profit for their animals.

But I must hasten to the practical part of my subject—*i. e.*, how Virginia farmers may raise their own mules. It is well known that the mule is a hybrid between the male ass and the mare (or female) horse. The best jack for the production of mules is the Spanish, being in almost every particular superior to the Maltese, and giving more sprightliness, activity, and earlier maturity to his progeny. He should be from 14 to 15 hands high, have great length of body, round barrel, and broad, deep chest. He should have heavy, flat-boned limbs, a long, thin face, and fine, thin jaw-bone. His ears should be carried upright, and be large, but thin and velvety.

Mares for mule raising should have large, lengthy bodies on short, broad and flat limbs. If she has a dash of blood so much the better, as the mule will undoubtedly show it in his style and action. Mares go about eleven months in foal, and should be bred early in the spring, so as to be sure to have her in foal that the colt may come before hot weather. March is perhaps the best month for mares used on the farm to drop their foals. When the time approaches, the mare should be put by herself in a good, comfortable, roomy stable, where she can be noticed and cared for in case of accident, though there is very little danger of this, especially in case of mule foals, as they are usually smaller than other colts. After the colt is a week or two old, the mare may be put to work; and by the time corn is up, so that he would injure it by running over it, he may be safely left in the stable or a small grass lot from morning till noon without suffering for food. They are not so much disposed to follow their dams as colts, and are frequently so indifferent as to be really troublesome when it is desired that they should follow. Where there is more than one mule colt, they will be perfectly satisfied without their dams, unless they are hungry; but it is not a good plan to put horse and mule colts in the same stable, as the mules kick so badly as frequently to injure the colts. After it is a month old, the mule should have constant access to grass, or have nice fine hay or cut-oats and bran in a trough to itself. It will soon learn to eat, and by the time it is five or six months old will be able to make a living independent of its dam. In weaning, there is very little trouble if the mule has been kept regularly from its dam; but it is best for both that it should be removed entirely out of hearing. It should be well fed on oats, bran and hay, and freshly-pulled corn blades are excellent food for weaning colts. The great aim should be to make the colt comfortable and supply all his wants, and he will soon be weaned. Great care should be taken that the colt does not lose condition at this time, as he ought to be in good order to commence the winter. The first winter of a colt's life it is important to give him good attention. Clover-hay, fodder, oats, and a very

little corn may be given. He should have access at all times to a good dry shed, protected from driving storms of wind, rain or snow. If possible, an old sod pasture or a rye field, or, in lieu of these, ruta bagas or carrots, should supply his craving for green food. In the spring he may be turned to pasture, being regularly salted and watched, that he may never loose condition. Mules will browse a great deal and do exceedingly well in woods pasture through the spring and early summer. Even when supplied with the best pasturage they will spend an hour or two of every day in any little thicket of brushwood they can get to, busily picking buds and peeling off bark. The second winter the colt may be fed stalk-fodder with a little grain, and the ensuing summer be treated as in the last. The fall after he is two years old, a mule, if well grown, may be put to light work; and at three or three and a half years old will perform his share of the ordinary duties of the farm.

CHESTER.

[For the Southern Planter and Farmer.]

A BLAST UPON THE SHORT HORN.

The almost universal system of mixed husbandry which prevails in this section demands a breed of cattle possessed of so many qualities that the writer is tempted to supplement the article in the January number of the *Planter and Farmer*, which so ably advocates the cause of the Short Horns as flesh-producing animals, with a brief presentation of their claims as milkers.

If the general opinion, that the Short Horns are not milkers, can not be refuted all claim to the position demanded for them as the breed for general utility must be abandoned; for the average farmer derives, in many cases, much profit from the dairy. If, however, it can be proved that they are as good milkers as any other breed, their position is established, because in other qualities they are unsurpassed. Mr. Dickson, an eminent cattle-dealer, says: "It cannot be doubted that, where the general secreting powers of the animal system have been increased, the power of secreting milk will be increased with the power of secreting fat; all that seems requisite is to encourage the power of that secretion which is most wanted." We are told in "Allen's History of Short Horns," that from the earliest period the Short Horn cows, as a rule, were large milkers, and when cultivated with a view to dairy purposes no animals of any breed excelled, and few, if any, equalled them. In the wide beef-producing districts of our country, where milk is of little object, the milking faculty of the Short Horn cow has been partially bred out, but it is capable of being restored in a few generations by the application of bulls descended from herds where the dairy quality has been preserved."

A practical demonstration of this has been made by the Hon. Harris Lewis, of Herkimer county, New York. He has bred Short Horns for the dairy, carefully selecting his bulls from well-established milk strains, and his cows this year yielded 245 pounds butter per head—an exhibit which compares creditably with that of the breeds of cattle available only for the dairy. The writer visited Mr. Lewis last fall and can bear witness to the fact that the cows were not pampered, and received only what one of our distinguished Albemarle breeders terms "rational treatment."

Mr. Lewis makes butter a specialty, and gives it as his opinion that,

considering the food consumed, the Short Horn will produce more butter, cheese, and beef than any other breed. Mr. Lewis stands in the front rank of the farmers and dairymen of New York, and his opinion there carries great weight. The testimony of others who have given this subject their attention coincides so nearly with Mr. Lewis's that it is needless to introduce it here.

Culpeper county, Va.

JOSEPH WILMER.

[For the Southern Planter and Farmer.]

A TALK ON CATTLE—WHICH ARE THE BEST BREEDS?

This question has been discussed from time to time in your useful and valuable journal—particularly so to every farmer—and I will here endeavor to comply with your request to send you some of my lucubrations on the subject, if you will allow me to do so, "*currente calamo*," and in a disconnected and conversational manner, though I hoped and expected ere this that some abler hand than mine would have taken up the lance in defence of the Jerseys, which our mutual friend, F. W. C., in an article in your September number, headed "Blooded Cattle," justly and candidly admits "are peculiarly adapted to the dairy," but says are inferior to the Devons *for beef*. This assertion is denied and proof called for. When did my friend F. W. C., or *any one else*, ever see a *pure* Jersey steer or heifer slaughtered for beef? I confess that though I have been in the stock business for nearly forty years, that I have never seen one. The bull calves are in too much demand for breeding purposes to be transformed into steers to be slaughtered, and a pure Jersey *heifer*, when she comes in with her first calf at two or two and a half years old (which they invariably do unless prevented), will always command enough (and often more than enough) to purchase a *span* of *three-year old* Devons or natives for slaughtering purposes. Jersey *grade* steers are occasionally slaughtered and make the best of beef, far excelling the native or grade steers of the Devon or any other breed in tenderness, firmness of grain, and in having the fat and lean well intermixed. It is only the Jersey bulls when too old for service, and the cows when too old for breeding, that are ever slaughtered, and no one should expect any other than "poor beef" even "when fat" from these—though "Custard," an imported Jersey cow, was slaughtered here in 1874, when she was nineteen (19) years old and had stopped breeding, and all who saw and tried the beef pronounced it to be the best beef they ever saw from an old cow of any breed. And just here, Mr. Editor, whilst I think of it, I must caution *you* to be a little more particular in using and placing your words; for in your December number, when noticing the various breeds of cattle on exhibition at the last State Fair, you describe the Jerseys or Alderneys as being "those beautiful little ugly cattle"; and it is universally admitted by all persons of taste (as well as yourself) that they are "beautiful," and though they are a medium or "little" breed of cattle, as the Devons are, yet they are being very much improved in that respect, for most of the best Jerseys at the

last State Fair exceeded the Devons in size. Sometimes the Jersey bulls are a little "ugly"—or *vicious*, as you must have meant, for this is the only sensible construction that could possibly be put on your language—but the Jersey bulls are never "ugly" or vicious, unless when kept up by themselves and not allowed to run with the cows; and this is always the case with bulls of any kind. The most docile bulls to be seen are the Jerseys when allowed free range with the cows.

If I am right in construing your meaning, our friend, Mr. A. M. Bowman, is wrong; for in an article "Improve your Stock," in your January number, he makes use of your words, and in speaking of the Jerseys calls them "little uglies," which surely was neither *your* meaning or intention, for the Jersey cows and heifers are admitted by all to be the most beautiful of the cattle creation.

Mr. S. W. Ficklin and Mr. A. M. Bowman tell us that the Durhams are the best breed of cattle; but they should have said *for their purposes*, and we here in Eastern Virginia would the more readily agree with them, provided we had their fine Valley lands and their blue grass sod fields that have been standing in pasture for more than thirty years, and which are yearly increasing in fertility and in their grazing capacities, by the judicious use of plaster alone; but even then, if located there, we should be unwilling to give up our "beautiful" and *profitable* Jerseys (as no one will do who has ever fairly tried them). But like the Queen of England and other Durham breeders there, and like Alexander of Kentucky and other Durham breeders here, we could not be satisfied without having with us our Jersey herd for the dairy, for none who have ever used Jersey butter once will ever after be satisfied with any other if that can be had. The butter that took the premium at the State Fair of 1874 (against great competition), and would have received it again at the last State Fair, but circumstances prevented its being sent there, was made by a lady of this county from *grade Jersey cows*, and it always commands in open market from five to ten cents more per pound than butter made from other sources.

But I am wandering from the subject I intended to discuss, viz: that the Durhams are not adapted to the thin lands of Eastern Virginia, or of the South generally. In looking at the cut of the large, fat, over-fed Durham cow in your January number, belonging to Mr. A. M. Bowman, and apparently stabled, groomed, and nursed with as much care as Bonner's "Dexter," the thought would obtrude itself upon me that it would take no prophet to foretell the fate of a herd of such animals if turned into one of our *fresh pasture fields* that have been standing (since the war) ungrazed, and are now blooming with a plentiful crop of broom straw, sedge and hen grass; put them in one of our largest "old fields" to pick their living, and they would be as much at a loss in finding it, and more out of place, than a New York "upper ten" belle would be in getting her support by picking cotton in one of our Southern cotton fields. After a summer's run in such a field they would surely become *big* "uglies";

and if they did not succumb to such treatment by the first frost, then turn them out in one of our large stalk fields to shift for themselves, as is usually the custom here, and you may rest assured that before the ides of March there will be a plentiful crop of hides to spread on the roof of the well-filled corn-house, which would have been nearly or quite emptied to have taken them through the winter alive. Now, do not understand me as sanctioning such treatment as is usually given to cattle in this section, for my motto is to get good stock and take good care of it during the winter; and I know, by ocular demonstration, within the last five years that the poorest old fields, stocked with cattle and sheep, will very much improve in their grazing capacity and gradually form a sod on which more and more stock can be kept every year, whilst these same fields, ungrazed, will soon become filled with broom straw, weeds, running briers, &c., &c.; and let no one lay the flattering unction to his soul that his fields are "resting" when occupied by such crops—but I am off the track again. The Durhams are well enough in their places—which is not here in Eastern Virginia, nor in any of the Southern States, except where the lands are very fertile and naturally well adapted to grass.

I must here enter my protest against Mr. B. and other breeders of Durhams making the unjust comparisons they do between Durhams of 1500 pounds and smaller cattle of native and other breeds of 1,000 pounds gross, all running in same fields, with more than enough grass for each to consume, and then fed with grain *ad libitum*. The only fair way to do would be to put twenty head of Durhams of 1,500 pounds each, and thirty head of natives or any other breed of 1,000 pounds each; let each herd run on fields of the same size and same grass, alike in every respect, and then measure the grain fed to each lot, giving both lots the same amount of grain and hay. When this is done, though it is said that "figures never lie," Mr. B. will find out, on making another calculation, that *his figures will lie*. I agree with Mr. B. that we should always use a *thoroughbred* bull of "whatever breed we believe adapted to our particular wants," and that we should "abandon scrubs;" but do not agree with him that the "Devons are more profitable or useful than the Jerseys."

If this, my first desultory "conversation," is not consigned to the waste basket, and does not bore you and your readers too much, I will endeavor in my next to show you both the great superiority of the Jersey or Alderney breed of cattle (for us here in Eastern Virginia and the South generally) over the Devons and Durhams, and I will give *facts* (and "facts are stubborn things") that must convince even my worthy and esteemed friend, F. W. C., of their great superiority. In conclusion, I will say that on the *best lands and for beef alone*, breed the Durhams; for uniformity of color and for work oxen of medium size, breed the Devons; but for the dairy, for "beauty," and for *profit*, breed the Jerseys; and if you must needs have work-oxen, why buy them (as you do your mules) from those who are foolish enough to raise them, for a Jersey heifer two and a half years old, with her first calf, will always

command enough to purchase a choice yoke of four-year-old Devon or native steers. My sheet is full, but the subject is not exhausted by any means.

Fredericksburg, Va.

A. P. ROWE.

[Our correspondent has promised us an article on Ayrshire for our next number.—Ed.]

[For the Southern Planter and Farmer.]

THE BEST BREED OF CATTLE FOR THE ENTIRE SOUTH.

There has been much said in agricultural journals about the different breeds of cattle. Some recommend the Ayrshires, some the Jerseys, some the Short Horns, and some the Devons. There is no breed that possesses so many good points combined for all short-grass sections as the Devons. All the above breeds have qualities which give them preference for the particular purposes the breeder may desire to make of them, but for general purposes and the rough fare (of any country that is not specially a good grass section) the Devons will probably take pre-eminence over all other breeds of cattle. The Devon ox is admired above all others for work, and is acknowledged to be superior to all, being hardy, active, docile, easily fed, and has endurance, having a strong constitution. They make good oxen at the age of 16 to 18 years of age. Devon blood crossed with the native cows, or with other improved breeds, will convey their peculiar traits of form and color farther down in the crosses than any other improved breeds of cattle.

The very first cross produces such a vast improvement in size, form and general appearance that the most casual observer cannot fail to notice it. The difference in the value of a calf by a Devon bull over that of a scrub from the same cow would not be less than ten dollars at one year old, and the difference would increase as they grow older. The general introduction of Devon bulls to replace the scrubs that are wandering about over the old fields of Virginia and North Carolina would save more than double the value of the net stock. The most feasible method for the introduction of these animals amongst the farmers is for several farmers to combine and purchase one for the use of all. The pure blood Devon cow of to-day is different from what she was fifteen or twenty years ago. It is no unusual thing of the present day to see a pure blooded Devon cow carrying off the first prize at our agricultural fairs as the best dairy cow. "From trials made in Derbyshire, England, the Devon breed of cows, fed on the same pastures, prove quite equal to the Jerseys or Ayrshires in quantity of butter."

The writer made several trials of half-breed Devons and Short Horns of same age, raised on same feed to the age of four years. "In this trial the Short Horn grades excelled the Devon grades in height and length, but not in weight or flesh, the Devon grades showing more flesh and better condition during the whole term they were fed together. Both trials proved the Devon stock the easiest fed and hardiest cattle, and the most profitable stock for all purposes, with ordinary feed." I have seen Devon oxen that weighed over 2,000 pounds, and not as fat as they might have been at that.

The Devon cow is the poor man's cow, the pet of small farms and scant pastures, being docile, yielding a good product longer than any other known breed; will yield a fine chance of milk until 15 or 18 years old. She is satisfied with little, and with that little coarse. Their butter

commands the very best price in the market. Their milk is the best of all other breeds, being rich in quality, the cream blending with the milk, making it peculiarly suited for the milk dairy.

The Devons are being introduced into all the grass sections of the United States, and some of the largest Short Horn breeders are now turning their attention to the breeding of them. Wherever they have been introduced they have met with favor.

Louisa C. H., Va.

F. W. CHILES.

[For the Southern Planter and Farmer.]

BERKSHIRE HOGS—MANAGEMENT, &c.

I have been intending for some time past, to write an article for your invaluable paper on the subject of raising hogs, and the best breed to keep. I prefer the large Berkshire breed to any other breed I know of; to the inexperienced he has the appearance of indicating both skin and flesh of a coarse quality. Nothing, however, can be finer than the bacon, and the animals attain to a very great size (from five hundred to six hundred pounds being the average weight when completely fattened). It not unfrequently happens that a young sow will eat her young ones, she should therefore be carefully watched and well fed when about to farrow; which may be known by her carrying straw in her mouth to form her bed. Care should be taken to separate her from other pigs, the boar particularly, or he will infallibly devour them. The sow, at farrowing time, should be enclosed in a pen, with a shelter at one corner with a bed of straw or leaves. At the close of about a week after farrowing the sow should be allowed to leave her pen for a short time every day, and when the brood acquire a little strength, they may accompany her. If the brood be too numerous, they should be lessened as soon as possible, by killing some of them at the age of a fortnight or three weeks, as "*sucking pigs*" or "*roasters*." Six or seven, or at the most nine, are quite as many as should be left. The sow, during the whole period of nursing, should be supplied with an abundance of the most nutritious food, consisting of cooked potatoes and corn meal, or something equally nutritive. The young pigs, even while sucking, should not be left wholly to the nourishment afforded by the sow, but should be furnished two or three times a day with skim-milk made lukewarm, and having a little corn meal mixed with it; in about six weeks or two months, they will generally weigh from thirty to thirty-six pounds, and be strong enough for weaning; in doing which, they should be gradually separated from the sow, only allowing them to suck at first twice, and then once a day. As regards fattening, it is true that hogs are very commonly fattened and killed at ages not exceeding eight or ten months, but I have found, by experience, that the animal is not in his prime until two years old; and if kept a year longer the flesh will have a still higher flavor; for that substantial consistence of fat, which constitutes the main value of bacon, can only be acquired in perfection by age. Some varieties of pigs, (the Chinese for instance) arrive to nearly their full growth within a year; but the Berkshires, and all the large breeds, increase with good keeping as much or more in size and weight during the second year as they do in the first. From five to eight weeks is the average time requisite for fattening, but to fatten thoroughly a hog of the large Berkshire breed for bacon for the farm hands, etc., would require ten or twelve weeks. But, for my own use, I prefer bacon that is less fat.

Whole corn, boiled potatoes and corn meal mixed with slop from the kitchen, I have found to be the best food for fattening hogs. I feed my fattening hogs three times a day (as much as they will eat) on the above articles, and one of my hogs will generally weigh more than any two others in the neighborhood. To have a good breed is of vital importance, and as I said before, I think the Berskhires are the most profitable.

Fauquier county, Va.

WILLIAM BENN.

[For the Southern Planter and Farmer.]

DOGS AND SHEEP.

It is necessary sometimes to bring antagonisms together in order to bring about reconciliation. In the minds of some farmers there could scarcely be two things named more antagonistic than the two which head this article. Light and darkness, heat and cold, fire and water, may, in their minds, bear some resemblance, but they only faintly illustrate the antagonism between dogs and sheep. I confess it requires some boldness to step forward and advocate the cause of a class of domestic animals so universally anathematized as the dogs are, when mentioned in connection with the sheep. But justice requires that the truth should be known and considered before a sweeping judgment is pronounced, even against a yelping cur. There is a philosophy connected with the chasing of sheep by dogs which it may be well for sheep-raisers to consider. Everybody knows that sheep are timid, and are frightened at the very appearance of a dog; and if a dog makes his appearance in a field where there are sheep, they will run from him as long as they can see him, and this they will do without any show of hostility on his part. And everybody knows that it is the nature of dogs—especially young dogs—to chase all animals that run from them. Probably ninety-nine of every hundred dogs convicted of sheep-killing were led into it in this way. How, then, shall we prevent it? I will tell you what I did a month ago. I have a small flock of sheep which I feed and attend to myself. I also have a young pointer dog, and he is fond of going with me wherever I go. One morning, when I went to feed the sheep, the dog went along, and it did not occur to me what a mortal hatred sheep have toward dogs, until I reached the field where the sheep were and saw them taking to their heels as for life, and the dog just ready to take after them. I scolded the dog and called the sheep, and, though very gentle, I could not induce them to come back to their feed until I had put my pointer the other side of the fence; and even then they eat as though they felt unsafe, and had a suspicious eye all the time toward the innocent dog that stood looking through the fence at them and seemed to be wondering what the difficulty was. The next morning he started with me again, but I bade him go back; but when I had gone some distance I looked back and he was looking after me, and seemed greatly scandalized that I had forbid him to go. Suddenly it flashed upon my mind that the reason why sheep are so much afraid of dogs is because we always drive the dogs back when we go among the sheep; and the reason why the dogs chase the sheep is that they are never allowed to see them except by accident, and then the sheep run from them, and if not under the eye of the master, four dogs out of five will give chase. While I thought thus I bade Ponto come along, and I have allowed him to go every time since. For the first two or three mornings the sheep

were afraid of him, though he did not dare to cross the fence; but all fear has now subsided, and he goes with me into the field and walks round and looks at the sheep as though he felt that it was his special business to see that they are fed; and they are about as much afraid of him as they are of one another. Is it because they know him as a particular dog? or would they not be less frightened at the approach of any other dog, as the result of their acquaintance with *him*? I think there is a lesson here that may be learned with profit. If farmers who raise sheep would often take the dogs with them when they go among the sheep, the dogs would find out that the sheep belong to the place, and they would as soon think of killing and eating the hogs as the sheep, for dogs love hog meat just as well as sheep. And the sheep would soon learn that the dog is just as harmless as any other animal, and they would learn not to be frightened at his approach, unless he actually chased them. I am in favor of a dog tax as a means of reducing the surplus dogs; but taxation will not prevent my pointer or your setter from running after sheep if they *run from them*, frightened half to death, when they happen to enter the field where the sheep are, on their return from the hunt, and we are not in sight. Let the dogs and the sheep become acquainted with each other, and in my opinion it will result in their mutual profit. How does it happen that in countries where sheep are raised much more extensively than they are with us, that the *dog* is chosen to *help mind them* and keep them in proper bounds? Do you say he is a different dog? I admit it; but he does not differ a whit from our sheep-killing, sheep-chasing dogs in those particulars that make our dogs such; without training, the famous shepherd's dog would collar a sheep and eat him just as quick as would any of our common dogs. But he is capable of being taught, and is taught to be a most valuable aid in tending sheep, and by habit would be as likely to crave a meal off his master as he would off one of his master's sheep. How is it that our common curs run among the pigs and poultry and do no harm? I should say, it is because they are made familiar with them, and are taught not to hurt them. And there is not a cur in all the land, no matter how low in blood, or in respectability from any other source, that may not be taught to associate with sheep until he could be trusted to go in and out of the sheep-folds according to his own liking, without the least danger to the sheep. Then why not familiarize our dogs with our sheep and our sheep with our dogs? and the more the better; and my word for it, there will be less reason for complaint in the next twelve months against sheep-killing dogs than we have had lately, and less than would be realized from the most stringent dog tax that our Legislature will ever dare to impose.

Greenwood, February 5, 1876.

S. M. SHEPHERD.

Milk as near at equal intervals as possible. Half past five in the morning and six at night are good hours.

Be especially tender of the cow at milking time.

Never think or talk of anything besides what you are doing while milking.

Offer some caress and always a soothing word when you approach a cow, and when you leave her. The better she loves you the more free and complete will be her abandon as you sit by her side.

[For the Southern Planter and Farmer.]

SHEEP HUSBANDRY IN PIEDMONT AND TIDEWATER VIRGINIA.

You ask me for my views and experience in regard to sheep husbandry in Virginia. I would give them for what they are worth with a great deal more pleasure if I did not know that our Legislature has not the independence to vote for a dog law to protect sheep. There is not a member who does not know that a dog law would materially advance this most profitable industry in the State, and yet session after session passes without the law, and I doubt if we ever will have one until, by a change of constitution, members be made ineligible for a second term. Without a protective law the profits of sheep raising are very precarious. With a proper law there is nothing that would pay better on our worn out lands. For rich lands, with fine grass, the large breeds Cotswolds and Leicesters are the most profitable in small flocks—say not exceeding 50. With good management, a flock of that size and breed will pay about \$8 per head per annum, or \$8 per acre, for 50 acres of good grass will support them; but for general purposes, on worn out, briery, broom-sedge lands, the French merino and their crosses will pay best. These sheep attain nearly double the size of the Spanish merino, frequently weighing 140 pounds gross, and have more constitution, and will stand rougher treatment, and keep fat on shorter grass than any other breed that I am familiar with. The profits on them ought to be about \$5 per head per annum, in flocks of not over 100, on two to three hundred acres worn out, broom-sedge land, or on 100 acres or less of grass land. All sheep do better in small flocks, (say 20 to 40); but the above breed will bear crowding better than any other. There is no stock or industry, for its cost and land required to keep them, that will pay as well as a small flock of sheep—say 40 head; but as you multiply them the profits are in inverse proportion, and that is the mistake generally made. They should never be in flocks of over 100, and that flock should have a shift, (that is, a change of pasture), to keep healthy, unless it is a small flock on a very large range. If a farmer has 1,000 acres of worn-out, broom-sedge land (I don't mean land with *nothing* on it, but covered with sedge or briars or some verdure of some kind,) and has it divided into ten fields or shifts, he may keep 500 sheep—100 in each field—with a change for each flock say once a month, with the fair prospect of a profit of \$2,500 per annum. He should have in addition five acres of turnips, well manured, with the product from which to feed them in the winter, and that would be all the wintering necessary, unless in a section subject to long and deep snows. That 1,000 acres might not be worth in the market over \$5,000, and yet with good management a flock of sheep, *exempt from dogs*, would pay \$2,500 per annum. Is not that a hopeful view to the owner of poor land, provided our Legislature would tax dogs to pay for the sheep killed? I don't say tax them, to contribute to educate negroes; for that, our poor lands are already sufficiently taxed. It may be said our lands are not fenced or subdivided. If our young men would give up a part of the time devoted to fox-hunting and other sports, and go to work, they could easily cut off the pine, cedar and other brush, and make subdivisions of watlings that would answer the purpose first-rate for sheep and to great advantage to the land, and especial advantage to kill off the dogs. Instead of any

dog could be raised a fine hog, and one dollar's worth of strychnia would kill more foxes than a pack of ten hounds. Now this is coming down to hard work, which I know is very hard to do; but what is the alternative? Go West! and come to it there ten times as hard, in comparatively a foreign land, away from kindred and friends, without any one to soothe the sick bed which generally follows a change of climate. literally living on hog and hominy, and our old Mother State divested of her brightest jewels—her young men. I contend if our young men would *work and live* here as they *have to do West*, they would make and save more money, and at the same time enjoy a society and climate far more congenial. But this is a diversion from my subject—sheep.

The kind of sheep recommended, the crosses of the French merino, can be bought in Ohio at a cost, delivered in Virginia, at from \$3 to \$4 per head, depending on quality of flock and season at which they are bought; and it must be exceeding bad management if the farmer don't get his money back and have the sheep left, or make 100 per cent. the first year. Sheep and all other animals do better in Virginia from the summit of the Blue Ridge to the head of tidewater, because of the comparative exemption from flies; but sheep, and especially this breed, do well in the tidewater counties *off* the river flats, but I would not advise the mountain or western sheep transferred to river low grounds. My experience is, that the native or acclimated sheep of those counties do better on the flats than any other. There is no animal that improves the land as fast as sheep: First, because their droppings are well scattered, and they generally sleep at night on the highest, poorest points; whereas the droppings of cattle are in piles, and usually in low, protected, already rich spots. Second. Sheep are light and do not injure the land by poaching in wet, muddy weather. Third. They will live and thrive on land, grass or herbage where any other animal will starve.

I trust such an influence will be brought to bear on our Legislature as will force them to give us an efficient law for the protection of sheep, and that our young men will try this industry in connection with small concentrated farming, and that our old Mother will not be further bereft of her population, and left an habitation only for foxes and wolves.

Fauquier Co., Va.

ROBT. BEVERLEY.

PROFITABLE SHEEP.—A correspondent of the *Prairie Farmer*, who has kept sheep for ten years, gives the following statement of his expenditures and receipts: He commenced with thirty-two sheep and at different times bought forty-two more. He has raised 356 lambs, killed 158 sheep, sheared 726 fleeces, or 4,136 pounds of wool, worth \$1,357.92, and has sold 206 sheep for \$475. Each sheep has paid him \$2.51 per year.

LIVE STOCK AT THE CENTENNIAL.—Everything points to the fact that the live stock at the Centennial will be a leading feature of the vast exhibition. A circular has been issued from headquarters, announcing that this display will be held in the months of September and October, fifteen days being allowed to each class and family, the division being as follows: Horses, mules, and asses, from September 1 to 15; horned cattle of all varieties, from September 20 to October 5; sheep, swine, goats, and dogs, from October 10 to 25; poultry will be exhibited from October 25 to November 10.

Horticultural Department.

[For the Southern Planter and Farmer.]

CELERY.

As this is the time to prepare to raise celery, I will write you a few notes on the cultivation of this delightful vegetable; I think it would be to the interest of every person, who cultivates a garden, to raise at least enough for family consumption, as it will bring both health and pleasure; hitherto it has only been cultivated by a few as a rather rare luxury and for rare occasions. Every farmer might, with only a little pains, make enough to supply his family. It is a sea shore plant, and when first introduced, was rather noxious and unwholesome; but, by cultivation, it has been made not only wholesome but one of our greatest luxuries. In the tobacco growing regions most persons raise the plants in their tobacco beds, drilling a few rows of seed on the outside of the bed; this is the easiest possible way to raise the plants, as these beds are usually in moist, shady places, and this plant delights in these. But, if you wish to raise them in your garden, select the most moist, shady spot, make it rich, light and friable. Hen manure and commercial salt mixed is the best manure, and should be worked in the earth some days before the seed are sown; sow in drills some seven or eight inches apart and not very thick. If you sow broadcast, half an ounce of seed will sow forty-five square feet. Keep the grass and weeds out by hand picking. In dry weather keep the bed well watered—if your bed is rich and kept well watered the plants will be large enough to transplant in May, but I think it best not to transplant until the last of July, or first of August, as by this means you will save the labor of working them and of watering so large a space of ground, as you would have to do in all dry weather; and besides, you will have the advantage of putting it on ground that has been cultivated in some earlier vegetable, such as peas, lettuce, &c. This land must be very rich, as celery will not come to much unless the ground is very rich. Some prefer to transplant in ditches, others on the surface; I much prefer transplanting on the surface, as celery made in this way is much more brittle and better flavored. If you wish it in ditches, make them fifteen inches deep and as wide as your spade; put in three or four inches of very rich soil, set your plants in this, making it wet, and covering for some days. or until the plants start to grow. After they have grown some three inches you commence to fill up the ditch, this is done by having some light, fresh earth on the edge of the ditch, ready to be scraped in, when you gather all the stems in a bunch with your left hand and scrape in the earth with the right high enough to come even with the top of the bed; this you continue to do from time to time, until your plants are as large as you wish, or until hard frost. I have made it by surface plant-

ing in two ways: one by single rows, the other in beds. If your space is small, beds are best; thus upon a bed ten feet square you could raise four hundred plants by planting six inches each way, but I prefer the beds to be just half that width (as in that way you can reach the middle of the bed without tramping it), and as long as is convenient; put the plants six inches each way, and keep them in a good, healthy condition ready for hilling, which must commence in Virginia and Carolina about the middle of September; if it is done any earlier it will rust and be ruined. In commencing to hill choose a time when the earth is moist, so that when you catch up the stems with the left hand, the earth pressed up to them with the right hand will remain and keep the leaves together until the whole bed is filled as high as necessary. The same rule will answer for single rows. When you have finished hilling and cold weather begins, cover the bed with corn stalks, so as to protect the plant from the frost and the earth from freezing.

Winston, N. C.

L. B. S.

[For the Southern Planter and Farmer.]

POTOMAC FRUIT GROWERS—JANUARY MEETING.

President Gillingham read a very interesting paper on "The Insects of the Apple," in substance as follows:

1. The Tree Borer (*Saperda bivitata*), a nocturnal insect, has proved very destructive to our orchards. The female deposits one egg in a place, on the lower portion of the trunk of the tree, which hatches and enters the tissues of the bark. As it grows the footless grub burrows deeper and upward, until it reaches the heart of the tree. Here it undergoes its transformation, and in the spring the perfect insect emerges to the light of day. The remedy is to observe the bark of the trees very closely during the summer to discover the excrements that are ejected. The discolored and depressed portions of the bark will indicate these places. Cut into them and destroy the worm. If they have penetrated the wood, pursue them with a stout wire. As preventives, alkaline washes may be used as a means of driving away the mother beetle. Scrub the trunk with soft soap in May or June, placing portions in the forks of the branches, to be dissolved by the rains. Examine the bark again in August. When the worms are cut out, inject the soft soap. Encourage the presence and aid of the birds, especially those which destroy the grubs of wood-boring insects.

2. The Thick-Legged Borer (*Chrysobothris femorata*), another variety, is very common at the West. This is a black beetle about half an inch long, and may be seen running up and down the trees in June and July. This beetle attacks the stem higher up than the *Saperda*, and the hole bored by the grub is flat. The grub at first burrows under the bark and then sinks into the wood. The remedies and preventives are similar to the preceding. Specially seek for the young in their shallow burrows in August before they have penetrated the wood.

3. The Twig Borer (*Bostrichus bicandatus*) attacks the branches. This insect is a small chesnut-brown beetle, from one-quarter to one-third of an inch long, and may be known by two horns on the hind end. The effect produced on the small limbs is similar to the blight, causing the

death of these at midsummer. They enter the bark near the axle of a leaf which turns with the twig, and often extends several inches along the pith. The remedy is to catch and destroy. Cut off and burn the dead branches.

4. Another variety is the *Leptostylus Acufiferus*, a short, thick, brownish-gray beetle, with spines upon its wing covers (hence its name) about one-third of an inch long. The larvæ are small worms, found in multitudes under the bark, and making long, winding burrows.

5. The Bark Beetle (*Tomicus Male*) is a new variety. It is a small, smooth, black or chestnut-red, and cylindrical. The larvæ feed under the bark, and, entering the wood, destroy the young trees.

The best remedy against the two last is to keep the trees well washed with a strong lye, made of white lime, in May and June.

6. The Bark Louse (*Aspidiotus Conchiformis*) is very injurious in some parts of the country. These little creatures are very prolific, and soon cover every twig of the tree, obstructing its transpirations and abstracting its juices. Often the leaves and fruit are overrun with them. The *nidus* of these insects is the well-known "scale" flat, brown overlapping each other on the branches. They hatch out in the spring—generally in May. The limbs on which the scale appears may be cut off and burned during the winter. To destroy the insects, strong lye, or solutions of potash or soda, or whitewash made of lye and sulphur, or tobacco boiled in lye, or soft soap, tar and linseed oil, are all remedies. Make the application in May or June. The lady-birds feed on these insects.

7. The Leaf Louse (*Aphis Male*) is a small, green, wingless insect. They crowd upon the green tips of the twigs and the under side of the leaves, sucking the sap. The eggs are laid in the deep cracks of the bark and hatch as soon as the buds expand. The best remedy is to scrape off the rough bark, and apply to the stems of the trees alkaline or lime washes.

8. The Root Louse (*Phemphigus pyri*) is the greatest pest of any. It is found in warty excrescences on the roots. To eradicate them, remove the earth and pour (hot) soapsuds upon the roots, and thus save your nursery stock.

9. The Codling Moth (*Carpocapsa pomonella*) gives us so much trouble that we now have but few perfect specimens of fruit. Early in the summer it drops its eggs singly on the blossom ends of the apples, from whence the young worm passes to the core of the fruit, where it consumes the pulp and seeds. In three or four weeks it has attained its growth, when it makes its exit by gnawing through the side of the apple. It instinctively seeks the trunk of the tree, where it hides under the scales of the bark. This affords an opportunity to destroy the insect in its pupæ state. The pupæ can also be trapped in cloths placed in the forks of the trees, or wisps of hay or folds of paper tied around the trunks. These should be examined, say once a week, and the pupæ be destroyed. The moth, being nocturnal, may be caught by placing lamps or kindling fires in the orchard.

10. The Tent or Nest Caterpillar (*Clisiocampa Americana* of Harris) is found also on the wild cherry and persimmon, the moth selecting a terminal branch that has completed its growth, deposits her eggs to the number of three hundred, which are covered with a broad sheath. These eggs can be readily seen and destroyed in the winter, or the nests may be eradicated in the spring.

11. The Lapped Caterpillar (*Gastropacha Americana*) is also found on apple trees. The worms are flat, and when at rest can scarcely be distinguished from the bark. They feed at night. The remedy for these is to hunt for and destroy them.

Washington, D. C.

G. F. N.

[For the Southern Planter and Farmer.]

CULTIVATION OF ASPARAGUS.

In accordance with your request, I give you my mode of the cultivation of the healthy and excellent vegetable, Asparagus. I do so the more willingly, as I find there are many different modes of planting and cultivation recommended, most of which do not suit our latitudes; believing too it is desirable that the farmer and horticulturist should arrive at definite results, and have as much fixed and determined in his plans and operations as possible. While we are looking for the "best way," we are losing valuable time; expending our resources uselessly, and experiencing disappointment; all of which could often be obviated by obtaining the experience of our neighbors, and the results others have obtained in their explorations of the paths, which to us are often yet obscure and undefined.

The writer has made the raising of asparagus a sort of specialty, and devoted much time and observation to its culture, and the different modes of its planting and management, recommended and practised by different cultivators. The systems used by Northern horticulturists do not suit our State and must be carefully avoided. They plant and cultivate in a cheap manner, and cut and use this vegetable in a green state after it has grown 4 or 6 inches above the surface. Our people only prize it when white, and when cut as soon as the stalk breaks the surface, which time must be carefully looked after. While believing the Northern people are half right, and perhaps wholly so, as to the time of cutting and using asparagus, still it is a matter of taste and habit, and we have to pander to this taste, and offer to our customers the large white stalk, *the larger* and whiter the better.

Manner of Planting.—We have tried beds planted out 5, 6, and 8 feet apart, and decidedly prefer those 6 feet apart. With less room than this, we cannot obtain dirt enough to raise the beds sufficiently high to obtain long white stalks. The beds 8 feet apart are planted with two rows at the sides of the trenches in *Quin-cunx* order. The plants coming up at the sides of the beds are easier to cut, but then they are not so long, and as the bed gets older, the crown is always rising, and the stalk gets entirely too short. We have tried 12, 14 and 18 inches for the plants in the row, and prefer 14 inches, the first being too near, the latter further than necessary. The trenches must be dug 12 inches deep, and 12 inches wide at least, at the top. The top surface must be put on one side and the subsoil on the other. When dug, some prefer to put down the plants and cover with a little top soil, and then 3 or 4 inches of well rotted stable manure, thinking the plant will get all the benefit of the manure by its sink-

ing to the roots, and by the roots rising up to the manure. Others prefer first to spread 3 or 4 inches of manure at the bottom, then spade it in, set the plant on this, and cover lightly with top soil, just enough to fairly cover the plant. We do not know that there is much to choose in the two modes. Both will do well. There is more labor in the last mode, but altogether we prefer it. The crown of the plant always has a tendency to come towards the surface, and thus ultimately make short stalks. The last mode tends to keep the plant down at the bottom of the trench, where the manure has been spaded in. Then asparagus roots should be lightly covered, for if they do not sprout out soon, they have a tendency to rot, and by the first mode the plant, with both the earth and manure, are sometimes covered too deep, and do not come up well.

Time to Plant.—The spring is decidedly the best time to plant. The roots, as we have said, require light covering, and if planted in the fall, this is sometimes not sufficient to protect them from the frost, and they perish during the winter. Then again the water settles in the trenches during the winter and early spring, and the plants rot sometimes, with the varying temperature. The dirt too often washes down upon the roots, and they become so much covered that they do not germinate in the spring.

The trenches should be prepared early in the spring, or in the fall, if there is more time to spare for the purpose, without, however, putting the manure in until the spring. We do not like the manure too much rotted, as it has lost much of its strength to push the young plant rapidly forward. The best time to place the roots in the trenches is as soon as the buds commence showing themselves and pushing out from the roots, or even a little earlier.

Age of Roots to plant.—One year old roots will answer if they are well grown, but we prefer two year old plants, as being more hardy and certain to germinate. In planting, do not suffer the roots to become dry or frozen.

Kinds.—The opinion prevailed for a long period, that there was but one kind of asparagus. This is now given up, even by Peter Henderson, who for a long time contended for one kind only. "Connover's Colossal" is now the most popular kind, but after all, much more depends on the manure used, and on the soil, than the kind. We think that among plants usually cultivated in Virginia, some plants put up whiter stalks than others. This is partly, no doubt, dependent on the soil and time of cutting, but we are convinced that some of our kinds are naturally whiter than others.

Soil and Exposure.—The soil best adapted for this vegetable is gray, moderately light, and of course as rich a soil as can be obtained. The latter requisite, however, can be made up by the use of a plenty of suitable manure. The exposure should be towards the South and the rows should run North and South, to get the full benefit of the sun. The inclination should not be enough to cause washing. Care should be taken to have an outlet for each furrow between the beds, to prevent settling of water, which, beside sobbing the land, will materially interfere with the cutters after rains.

After Cultivation.—As the plants grow up the grass must be kept out by the hoe and hand weeding, and dirt gradually added, not putting on too much at a time. The second summer a moderate quantity of manure should be added, and at the end of this summer the trenches must have been evenly filled with the top soil. The next spring, which will be the third from setting out, apply more manure, and make up a bed moderately high ready for cutting the third summer. No cutting must be done before this time, and now must be moderate; at first, twice a day, and as the season advances once a day, and towards the close, only every other day, to give opportunity for the plants to put out and the roots to strengthen themselves. The fourth year the beds may be made up high and fully cut. When the cutting is over, which generally is fixed for the 10th of June (which period may frequently be prolonged to the 20th, if the spring is late, and the first cuttings have been delayed by cold weather), the beds must be thrown down with the single plow, and all the grass carefully removed with the hoe. In about a month, throw this dirt back with the plow; if any wire grass shows itself, it must be carefully removed, though it take much time and labor. “A stitch in time” now, will save much labor hereafter, in regard to this great pest to asparagus beds, and to almost everything else. About the middle of the cutting season, it will be generally necessary to work up the beds by throwing the dirt up with the single plow again, then dragging up with hoes and raking over with hand rakes. At this period, however, if the surface is baked and hard, it will be necessary to fork the beds over with a pronged spade, then drag up the dirt with hoes, and rake over. It should have been previously stated, that the first operation to be performed in the spring with established beds, is, after the manure has been applied, to throw the dirt up as much as possible with the plow, then drag up with the hoe, and then rake fine with rake. This must be done as soon as the first shoots show themselves above the surface; if done too soon, the ground bakes and becomes hard before the asparagus comes up. This operation is to be performed every spring at this time, with established beds. In manuring old established beds, we cut off the old stalks, throw down the beds with the plow, apply manure and throw the dirt back, doing this any time from November until early in the spring; preferring, however, November and December for this purpose, when practicable, to give the manure time to wash in among the roots, and to promote good growth of the stalks for early spring cutting.

Cutting and Preparing for Market.—The cutting generally commences in this latitude in the first part of April; this is best done with a trowel and large knife. The best trowel for the purpose is a brick-maker's trowel, with one or two inches of the end cut off and sharpened; this will generally suffice, if kept sharp, without the trouble and time of the use of the knife. The stalks must be sorted, and those of the same average size tied up together with white cord, the tops being carefully put together in an even manner; then the butt ends must be evenly cut with a large sharp knife, and the bunches placed

in fresh water, ready for market the next morning. The asparagus, of course, must be well washed before tying. The New York market has been tried by a few producers in the vicinity of Richmond, thus far with indifferent success. The "truckers" around Norfolk, we believe, have been more successful. The shipping must be done by "express," which is costly—asparagus not keeping well more than two nights and one day, particularly in warm weather.

Profits.—The gross profits per acre, we think, may be put down at \$300, if this vegetable is well cultivated and highly manured. Possibly new beds, with great attention, might yield considerable more, and with indifferent care, the yield will be much less. From the gross sales, have to be deducted the loss of capital and labor, and manure for two and a half years at least—we may say three years, as the cutting should be partial the third year; and then the fourth deduction of annual cultivation and the cost of a large quantity of manure. The crop is quite a certain one, with good cultivation, as it is but little affected with drought. Not more, we think, than two acres should be undertaken by any one producer under ordinary circumstances in this latitude. If more is attempted, the cultivation and manuring will very probably be indifferent, and then there will be difficulty of disposing of more than the yield from two acres, unless shipping to Northern markets may be found profitable.

We omitted to say, that as soon as the beds are made up in the spring, (ready for cutting), a liberal dressing of salt must be applied over them as a fertilizer, and to keep down the weeds; fish salt is best. For two acres, fifteen to eighteen barrels of this will not be too much.

Henrico county, Va.

THOS. POLLARD.

CELERY.—*Sowing the Seed.* The seed of Celery should be sown in the open ground, in a sheltered border, as early in April as the soil is dry enough to be worked. Before sowing, the seed-bed should have a heavy dressing of well-rotted barn-yard manure, scattered evenly over the surface and forked under; then raked, removing any hard lumps of soil, stones, &c., &c., leaving the ground loose and finely pulverized. Open shallow drills with the marker one foot apart: sow the seed thinly in the drills by hand, and cover the seed by raking the surface with a wooden rake, drawing it in the line of the drills. We sow some Radish-seed sparsely in the drills at the time of sowing the Celery-seed. The Radish will germinate in a few days, showing the line of the rows, when a scuffle-hoe can be used between them, before the weeds start to grow. If the weeds get ahead, the labor will be increased tenfold. When the plants are three or four inches high, cut off the tops; this can be repeated a second time to advantage. It will encourage a stocky growth of plants, that will be more uniform in size.—*Quinn.*

Poultry and Pet Stock Department.

[We shall be happy to receive from Poultry and Pet-Stock Fanciers, contributions of any facts or peculiarities they have noticed in breeding. Also, when amateurs and beginners find barriers in their way, let them write us an account of their trouble, and we will advise the remedy to the best of our ability. All questions will be cheerfully answered, in the hope that not only the one who asks, but also some other readers of the *Planter and Farmer* may derive benefit therefrom.—Ed.]

[For the Southern Planter and Farmer.]

HENNERY ON A LARGE SCALE.

BY LOUIS OTT, OF NELSON COUNTY.

In the present communication I purpose to show in what way a much neglected branch of the agricultural business can be turned to become a source of immense income.

The hennery which I will describe is located on a large estate near Prague, in Bohemia, belonging to the Prince Rudolph of Thurn and Taxis, and was started in the year 1852 with 3,000 hens, for the purpose of the production of eggs, which in the year 1858, the time I visited that establishment, 5,000 hens were kept and several thousand fowls of different kinds were fattened. The capital then invested in the business amounted to \$9,800.

The land used for that hennery is a parallelogram, containing about three acres, one of the short sides of which is occupied by the hen-house, while the balance is enclosed with a high stone wall, and divided by seven close plank fences, running parallel with the longer sides of the parallelogram, in eight yards of equal size, which are well set in grass, planted with fruit trees, and used to feed the fowls on. The hen-house is thirteen feet from the ground to the roof and two stories high, the lower of which is divided by plank partitions in eight rooms, corresponding with the eight yards in front of the hen-house, and is used for the laying hens. In the front wall, two feet from the ground, are doors, $1\frac{1}{2} \times 4$ feet, for the entrance of the hens, and in the back wall are common doors for the use of the hands. Above both doors are windows, provided with wire-grating inside; during the warm season the windows are taken out. The floors are laid with brick, and every room is provided with a stone trough for water. Close to that hennery is a beet sugar refinery, the steam engine of which is used to feed these troughs with water, and the waste steam is carried in copper pipes through the hen-house to heat it in winter. One part of every room is cut off for a dark place in which, $3\frac{1}{2}$ feet from the floor, are baskets with straw for the hens to lay their eggs in. The second story, $5\frac{1}{2}$ feet high, is divided into four rooms for young fowls, and a large room in which fowls of all kinds are kept for fattening in little cages.

The great success of that establishment is particularly owing to the cheap food which is used, consisting of the maggots of the bow fly, which are raised in the following manner: A ditch was cut out

180 feet long, 9 feet wide, and 3 feet deep, the bottom of which is paved with stone, and on the sides a brick wall is put up, a little above the ground and well smoothed, to avoid the escape of the maggots. That ditch is divided by little brick walls into twenty parts and, including four feet room on each side, built over with a shed four feet high, covered with a roof to keep frost and water out. In the longer side of that building, facing south, are three doors. Every one of these partitions is filled with layers of six inches cut rye straw; two inches unmixed horse dung; one inch rich soil finely sifted; one inch "grains" from breweries; on that are poured four pounds of blood, or guts and waste meat. The contents of two and a half of these maggot holes, which do not cost over \$4, being sufficient to feed 6,000 hens, several thousands of young fowls and fowls put up for fattening one day, it is evident that an enormous profit must be derived from that establishment. About twenty days after the ditches are filled with these ingredients they are full of maggots ready to be fed, which is done in the following way: At day-break a certain quantity of the contents of the maggot holes (about four ounces to a hen) is brought to the first yard in front of the hen-house and spread over the same, when the door of the first room of the hen house is opened, and the hens, knowing exactly the hour when they are to be fed, are rushing into the yard, where they finish their meal in half an hour. They are then driven back to the house and stay there until the time of the second feeding. While the inhabitants of the first room are fed, the third yard is covered with maggots, then the fifth, seventh, second, fourth, sixth, and eighth, which finishes the first feeding of the hens. After that the young fowls are fed in the same way as the hens. In rainy or snowy weather all fowls are fed in the houses. The second feeding commences regularly at 1 o'clock, and is done in the same way as that in the morning. The fowls kept for fattening are fed during the day every two hours, and during the night every four hours, alternately on maggots, grain, meat, and a pulpy mass of broken barley, which is fed with a stopper.*

Every division of the house is thoroughly cleaned once a week, and the floors are covered with a two-inch layer of coarse sand, mixed with fine-grained lime.

There are ten male and eight female laborers regularly employed.

The hens are kept for laying until four years old, when they are fattened and sold, while the roosters are used two years for breeding.

In the months of March and April the eggs are saved for hatching, during which time the number of roosters, which is generally one to seventy-five, is increased to one to twenty-one hens. The

*There is during the summer frequently a super-abundance of maggots, while in winter they are often scarce, for which reason those which can be spared in summer are left to change into the form of a pupa, in which state they are easily kept in large, pitched hogsheads for winter use; but notwithstanding that, it is often necessary to resort in winter to the feeding of meat, mashed potatoes, grain and other materials.

hatching is done with incubators, after the eggs have been first put six days under a turkey hen, in order to give them the greasiness which is essential for the purpose.

The eggs are sold exclusively in winter, when they bring a higher price. They are preserved by dipping them in a solution of isin-glass.

Extract from the books of that establishment of the year 1858.

Sale of 85,415 dozen eggs.....	\$29,474 50
Sale of 4,571 capons, 596 turkeys, 656 ducks, and 555 geese.....	3,675 70
	<u>\$33,150 20</u>

Expenses.

Interest of capital invested.....	\$ 459 90
Loss by death of fowls.....	280 00
Wages.....	1,124 20
Materials for raising maggots.....	1,524 60
Grain for feeding.....	1,024 80
Freight for eggs to London and Vienna.....	2,625 00
Packing material.....	63 00
Repair of buildings.....	21 00
Rent for two stores at London and Vienna.....	350 70
Commission for the sale of eggs.....	631 40
Two incubators.....	142 10
Various small expenses.....	145 95
25,000 dozen eggs bought.....	1,750 00
Sum of expenses.....	<u>\$10,142 65</u>
Net profit.....	<u>\$23,007 55</u>

[For the Southern Planter and Farmer.]

POULTRY AND PET STOCK ASSOCIATION OF VIRGINIA AND NORTH CAROLINA.

I was pleased to see in the January number of the *Planter*, that an association under the above title had been organized, and trust that it will be well supported by both farmers and fanciers. The poultry interest on the farm is generally far too much neglected, the stock being allowed to breed in and in for generations, eggs set indiscriminately, producing small and degenerate chickens, which bring but 20 or 25 cents apiece in the market. This is not profitable; and to those who wish to improve their stock, I would say, pick out a few of your best hens, mate them with a pure bred rooster of one of the larger breeds, and pen them apart from the others. Set only the eggs from this pen, and in the fall get rid of all your original stock. Then trade your rooster for another of the same breed, but from a different flock, which mate in the spring to your selected pullets (12 or 15 are not too many), and you will be surprised to find what a vastly improved flock, in every way, you will have by the following fall. Do not breed from the cross bred roosters, however fine; as they are sure to breed back to their worst side.

Having an association, I suppose there will be a show next winter, and here again, I hope the farmers will not evince their lack of interest, by allowing to a few fanciers, the monopoly of pens and premiums. In most districts there is some breeder who will sell fowls or eggs at fair prices, and the small amount of extra care and attention such would require, would surely afford a pleasant occupation to some one of the household. Then, too, if any one fancies he has some bigger or handsomer turkeys, geese, ducks or guineas than his neighbors, let him pick out two or three of his best, give them a little extra treatment, and bring them along, to find perhaps that some one has them just a trifle better, which will put him on his mettle for next time. And so a beneficial spirit of emulation will be aroused, resulting, it is to be hoped, in a general improvement of the management and qualities of our domestic fowls.

Orange Co., Va.

ARTHUR DAVENPORT.

TURKEYS.

Turkeys kept for breeding stock should not be fed as high as those intended for market, but should be fed well; give shorts mixed with boiled potatoes, for morning feed. The feed at night should be oats, buckwheat and corn, but do not feed corn every day. The turkeys should have plenty of cracked bone and oyster shells kept by them. They should be learned to roost under cover, but should run where they please in the day time. Turkeys do not do well shut up. Begin to slack up on the feed of the turkeys when they show an inclination to lay too early. After the turkeys get to laying, feed all they will eat. Learn them to lay under cover. A good way is to shut them into the shed where they roost every forenoon until they get to laying. Nests can be made in flour barrels put on the side, and make a nest in them. After the turkeys get to laying they will rarely ever leave their nest. The eggs should be removed from the nest daily, and the date laid marked on the egg. Then the oldest eggs can be set first. The eggs should be kept where they will not chill.

I usually set my eggs under turkeys. If set under hens the young turkeys should be put under turkeys when hatched, for if they run with hens they will stay around the house and will not forage enough. Set the turkey on the ground, or make the nest of damp earth, covered with straw. A turkey will cover from sixteen to twenty eggs, according to size of turkey. After the turkey has set two weeks, sprinkle the eggs two or three times a week when the turkey is off. Sprinkle a little sulphur in the nest to kill lice. See that the turkey comes off regularly, and has plenty to eat. My practice has been to shut the turkey on the nest for twenty-four hours before she is expected to hatch. Then she will not leave her nest before the chicks are all out. I coop the old turkeys and let the young ones run until about six weeks old.

If the turkeys do not ramble too much, and can have a dry pas-

ture where there are plenty of insects, it will do to let the old ones have their liberty after the chicks are two weeks old. They must come up every night sure. It will not do to run any risks of loss by vermin.

I feed very often—say every two hours at first. I feed curds and shorts with a little coarse ground corn-meal at first. After the chicks get older, feed boiled potatoes or shorts, and the last feed at night of cracked corn. Keep plenty of fresh water by them, and use the “Douglass Mixture” regularly in the water that the dough is wet up in. I consider it a great help to the successful raising of turkeys, and costs but little.

CHILDREN AND CHICKENS.

A small dwelling, stable, garden, cornfield, working teams, farm tools and the the usual farm stock, comprise the home companions and articles connected with the employment and every day life of seventy-five per cent. of farmers' children in the West. Day by day they meet with these or some of them; their monotonous life goes on ever the same, and their love for the excellent and beautiful lies undeveloped and dormant; their opinions and tastes are unheeded, or are not brought out; and finally, that which might be developed into something really praiseworthy, becomes seared and hardened, until at last, when more mature, they find enjoyment in the commonest and cheapest pursuits of life. No kind of farm stock possesses so many attractions for the little chaps as poultry. The hidden nest, the smooth white eggs, daily renewed, the waiting and watching for the hatching day, the dozen little downy grown chanticleers with brilliant garb and prolonged crow, all have their influence, and tend to inspire the youngsters with love and admiration, and to develop a lasting fondness for the beautiful throughout the brute creation. Fancy poultry is better for the purpose than the common sorts; they have a higher value, and possess a similarity soon recognized by children, which at once causes them to draw comparisons. Finally they become experts, and as they grow older this fondness reaches out to the larger fields—choice sheep and swine, stately cattle and noble steeds—and with them will come higher improved farms, home comforts, and happiness for themselves and families.

CANARY BIRDS.

The season for obtaining canary birds has come again. Almost every steamer that arrives from Europe has a lot on board, consigned to the dealers of these wonderful little songsters. It is wonderful that so little a throat is capable of such a volume of sweet sound. There are two or three simple suggestions that may not be out of place in this paper, concerning the cost and care of a bird. First, a plain brass wire cage is preferable to any other, because it is easier to keep clean, vermin will not infest it, and it is more beautiful than

painted or wooden cages are, and not much more costly. Second, a bird will cost from three to five dollars. It is difficult to select a good bird from a lot, because you cannot distinguish the quality of his notes among so many; you must rely on the judgment and honesty of the dealer. You do not want a loud singer with a piercing note. The birds that are offered for sale at this season are mostly young birds, therefore select one with a soft, sweet voice; he will increase in power and volume of song as he grows older. Do not hang him in a draft of air. He will bear the out-door air, but not where a current of air flows upon him. His food should be plain canary and rape seed, with fresh water and a bath daily, or at your convenience. There are four things, yea five, that a bird will do in a family. He will give the little girl eight or nine years old, a few minutes lesson in tender, loving care each day. He will settle a dispute or a quarrel by drowning the voice of contention in the voice of song. He will drive away the blues, thereby saving a doctor's bill and helping digestion. He will awaken the household with a concert at sunrise, and fill the house with his happy spirit all day long. There will be at least one cheerful fellow in-doors when all the rest are sad.

Grange Department.

[For the Southern Planter and Farmer.]
CO-OPERATION OF GRANGERS.

To a thinking person, it would hardly seem necessary to call the attention of the members of the Patrons of Husbandry to this subject, and yet this is the foundation of success, and without it, there will be failure on a great scale. This failure will not be owing to the want of truth in the principles of the Order, or of practicability in putting them into execution, or of energy and intelligence on the part of its standard-bearers, but on the universal apathy and indifference of the great mass of the private members. No cause can possibly succeed, to any extent, where its professed supporters fail to sustain their leaders. The greatest military captains have failed because of the cowardice of their soldiers, and yet, the thinking world look to the commanders for success. If the Order has not accomplished what its most sanguine members expected, it has already done great things, and gives the hopeful promise of better results in the future, and if the whole Order would only exercise its individual and collective influence, another year would witness a grand revolution in many respects.

The reason why free government has not everywhere prevailed, has been owing to the want of back-bone of the people. In all ages, and in many countries, people have risen up against their oppressors; yet, for want of union and concert of action, the great majority has

been subdued and kept under by an insignificant minority, acting together under energetic leaders. During the trying times of freedom, over two centuries since, in England there were hardly ten men who would act unitedly and steadfastly, and but for men like Hampden, and Pym, and Cromwell, absolute monarchy would have everywhere crushed out free government for a long time. Addison wrote in his day, "If friends to a government forbear, they put it in the power of a few desperate men to ruin the welfare of those who are superior to them in strength and interest."

It is just the same principle with regard to the farming interest; and the organization of the Grangers must be sustained, and every private member be made to realize that his own welfare and interest is at stake. Unless he now arouses from his lethargy and joins the grand army of reform, this and future generations may feel their inability to accomplish any good, and as it was in the revolution of 1776, the great principles of right and wrong may be nearly destroyed. Gulliver ridiculed the Lilliputians, but with eternal vigilance they bound him fast while asleep, and just so it may be with the farmers of the United States. A few more passive years and the numberless Lilliputian laws may thoroughly bind them beyond repeal. Capital has wonderful capacity in this country, and no where has it been better exhibited than in railroad matters. The whole South and West has been, and still is, bound by what is called "vested rights" of railroad corporations. The people everywhere felt the burdens of railroad legislation, but they were powerless to protect themselves, till the Grangers arose in their might, and in some States have made it the law of their Commonwealths, that the State is supreme over all corporations, and forced the railroad kings residing in Philadelphia and New York, to stop their unjust discriminations against local travel and local freights. Other States have followed the great example, and if Old Virginia has not exhibited the same independence of character, the fault lies in the want of union among the members of the Order. Our Granges, from the Subordinate to the State Grange, may continue to beat the air in protesting against the tyranny of the different railroad corporations; but they will accomplish nothing, and will bring the Order into deserved contempt. The whole body of the people not under control of monopolists are as much interested as the farmers of the country in making an effort to overcome the many difficulties surrounding them—many of which can only be effected by concert of action. Without this nothing will succeed; with it, a few years would show a brighter aspect to the whole people. We have all read of the Macedonian phalanx, a solid body of courageous soldiers several files deep, with pikes projecting in front, preventing any approach, and irresistible to infantry, cavalry, or elephant, and how an army of thirty thousand heroes defeated and destroyed ten times their number. Such ought to be the phalanx of the Grangers, solidly marching along with irrepressible determination to obtain their rights, and abolish the iniquitous laws and customs

which drain them of the small amount of money they acquire by the hardest labor in all seasons and in all weather. If they disregard co-operation and unanimity in their councils, they will be like the armies of Xerxes and Darius, and will be utterly routed in all their efforts, and the name of Granger become a by-word of contempt and disgrace. Let every member of the Order lay aside his own views and go to work to sustain the officers of the Order, trusting to time and to the legal authorities to bring about any changes which may be necessary to advance the interests of the whole people. Doubtless in a few years the machinery of the Order will be simplified, and will work better, and the result will be more perceptible than at present, but until then, let every Patron work and persevere unto the end, and the good time coming will soon be visible. A balky horse ruins the whole team, and a perverse member of any society can do no good in it. If there is any word needed to be thoroughly thought about and acted out in all our dealings it is co-operation; and the best men in the Order are those who labor for this object.

GRANGER.

THE GRANGE IN ENGLAND.

The London (Eng.) *Farmer*, after speaking of the wonderful success of the Patrons of Husbandry in this country, adds:

"We will not at present stop to discuss the merits of Granges, or whether, as adverse critics say, they may not grow some day into a great monopolizing, dictatorial power, representing class interests only to the danger of the rest of the community. But the power of combination amongst the Patrons of Husbandry, or Grangers as they are otherwise called, we greatly admire. It would appear impossible to persuade English farmers to combine their interests so effectively for any purpose under the sun. They are divided amongst themselves, or they might return a large number of their class as representatives to the House of Commons. Then, again, our Farmers' Clubs and Chambers of Agriculture are badly attended; several have of recent years become extinct, and others are in a moribund state for want of hearty support. What is the solution of the question? Is it peculiar to young countries to maintain a heartier brotherhood than those which are old? Whatever we may think of the Granges, English farmers have certainly a few lessons to learn in the power of combination for the advancement of their mutual interests."

RE-ORGANIZATION OF NORTH ANNA GRANGE, No. 5.

Master, Dr. James G. Boxley; Overseer, Henry Chiles; Lecturer, F. W. Chiles; Steward, W. W. Goodwin; Assistant Steward, J. M. Baker; Treasurer, H. B. Bibb; Chaplain, H. G. Hiter; Secretary John W. Nunn; Gatekeeper, W. T. Ellis; Ceres, Mrs. E. S. Mansfield; Pomona, Mrs. F. W. Chiles; Flora, Miss F. Garrett; L. Assistant Steward, Miss Bessie Hiter.

January 18th, 1876.

JOHN W. NUNN, *Secretary*.

[For the Southern Planter and Farmer.]

SOWING GRASS SEED.

[This article arrived too late to be put in the proper place. The author's standing as a farmer is sufficient to command attention to anything he has to urge. Will some of our correspondents answer the General's inquiry about oats through our pages?—Ed.]

If there is one branch of husbandry which more directly interests the farmer than another, it is to succeed in getting a stand of grass. The life's blood of every successful agriculturist throbs through this artery of his profession. A failure to grow grass means a depreciation of the fertility of the land, and corresponding reduction of the crops. Since the war, I verily believe that more money has been lost by the people of the Valley in failing to get a grass catch, and particularly of clover, than the money we had invested in slaves. This failure has been almost universal with us; so much so, that a depreciation of the fertility of our lands is everywhere visible. There are apparently good reasons for these failures, the principal one is the repeated spring drouths; another, the failure of the clover seed, has caused the land to be plowed again in order to get it in grass, thereby diminishing the chances of success, which repeated plowings will surely do.

Whilst traveling last fall, I met with a gentleman from Fauquier, who told me that they had been as unsuccessful in sowing grass seed as we had, and that some of their more advanced farmers had been experimenting in drilling in clover and timothy with the wheat (through the same spout) after they had been thoroughly mixed, and that when sown early enough, say in the month of September, that it had been a success. I was so forcibly struck with the idea, that upon my return home, on the 5th of October, although too late for this section, I determined to make the experiment in a small way. The clover, timothy and wheat were all mixed and drilled in with the fertilizer; they all came up well, and the clover getting three leaves before cold weather commenced. I looked at it to-day and found the clover alive, but a little yellow; the timothy most flourishing, resting with the wheat in the little valleys made by the drill tines. I examined the timothy sown much earlier in the same field with a grass sower, and find that it is not near so healthy and strong, and am satisfied that all now growing on the ridges left by the drill tines, will die, as it generally does with us when the hot weather comes on. This has been a hard winter on the young clover, for we have had no snow, and the thermometer has been nearly to zero several times. It certainly would save labor to sow wheat and grass seed by one operation; but anything to secure a grass stand. The surface of the Valley wheat fields become very hard by spring, unless in a high state of fertility, and a harrow has become indispensable in putting in clover seed. It rarely fails to come up, but does not get strong enough to stand dry weather during the summer, and it dies. I would be much pleased if some of your correspondents would give us their experience in drilling in grass seed, either in the fall or spring; it is new to us in the Valley. Another request—we are poor oat growers about here, and not near as successful as you are east of the Ridge. Is it best to drill or harrow in oats? With me, oats, where harrowed in last spring, was a better crop than where drilled on the same land; it is the first crop of the kind I have raised for years, and have no experience. I find that we must follow corn with it.

Shenandoah county, Va.

GILBERT S. MEEM.

POTASH FOR PEACH TREES.—According to the statement of a Mr. Shepard, at a meeting of the Cincinnati Horticultural Society, potash is a cheap and excellent manure for peach trees. A barrel, costing him \$55, lasted him four years for an orchard of twenty-five acres. He dissolved the potash in water, making it of a strength just sufficient to float a potato, and then gave each tree two quarts of the liquid every spring. From two thousand peach trees treated thus he sold 1,500 bushels in one year, 680 in another year, and last year 1,800 bushels, and prospects still good for satisfactory crops in the future. He claims to have sold \$12,000 worth of peaches in five years. This would be an average of \$1.20 per tree for each year; a good yield certainly.

[Mr. TATE, of Tate, Muller & Co., Baltimore, Md., mentioned to the writer, a year ago, how beneficial the use of "German Potash Salts" had been to his peach orchard, applied every Spring. He stated that the trees kept perfectly healthy and vigorous, and gave promise of much longer life than is usually awarded to the peach in this country. These Salts are cheap, and the experiment is worth undertaking generally, at least, to the extent of one tree.—ED.]

IMPAIRMENT OF THE PERUVIAN GUANO SUPPLY.

The following communication has been handed to us by a responsible person, and as it treats of a matter of no little interest to the agricultural public, we insert it:

The London *Times*' financial article of the 5th of August last, says:

"We have been favored with a sight of some private letters written by the captain of a vessel sent out to the Peruvian coast to load guano. They are dated in May and June, and give a very interesting, evidently true, but also disastrous account of the state of affairs there. It would seem that the good guano is exhausted at Pabellon de Pica, and what the vessels had to take in was mixed with stones and gravel to the extent of from 20 to 50 per cent. The engineers in charge are burrowing and blasting among the rocks in search of more guano said to lie under them, and to supply the ships with this dross the rocks were also being swept. Over 100 vessels had arrived off the coast—there is no harborage, it would appear—and some of them had lain three months waiting for their loads, unable to get an ounce of guano to put on board. Some ships refused to take such rubbish unless on the responsibility of the government contractors. Dreyfus & Co., who, it was rumored, had obtained a discount of 40 per cent. on the remainder of their contract in consideration of the dross they had to take, stood passive in the matter. Many ships had gone to another part of the coast called Lobos Point, seven miles from Pabellon de Pica, where guano was said to be plentiful, but there they fared even worse than in the old spot. In the first place they had to lie in open water 40 to 50 fathoms deep, where the swell was so heavy that the lighters out of which they loaded were continually getting smashed, and ships themselves losing anchors and chains. The writer of these letters was told by a brother captain, who had been at Lobos, that 14 anchors and chains were so lost in a fortnight, nor was there any compensation for these evils, the guano at Lobos being as full of stones as the other. We have heard many statements to the same effect lately, but here we have the testimony of men actually on the spot, and at this juncture it is impossible to overrate its importance.

"It is beyond question that people in Europe have been kept thoroughly in the dark as to the position of Peruvian guano, its quality, accessibility, and probable quantity. It was obviously the interest of the Peruvian Government to keep everybody in the dark for some time longer. Were a riddle of what we have been told true, not only would it be impossible for Peru to borrow more, but nobody in his senses would take the new guano contract. It is better that the public should know the truth now than that delusive notions of the inexhaustible wealth of Peru in guano should lead on to further mischief. Peru, in any case, has not a monopoly in guano any more than of nitrate of soda, and the exhaustion of her stores of the former is turning people's attention to the deposits to be found elsewhere."

Referring to the above, I would add that I have confirmation of its statements by private advices from other sources. In connection with this, I think it may be well to call the attention of planters to certain facts in relation to the stock of Peruvian guano now in this country (gathered from a gentleman who has informed himself on the subject within the last thirty days) which may cause disappointment and loss if not properly understood.

The supply of "*Guanape*" guano is exhausted; there is no more at the island.

In New York there are several cargoes, some containing as high as 14 per cent. ammonia (which the agents decline to sell except at an advance of two and a half to three dollars per ton upon the schedule price), and some containing less than 10 per cent. There are also some remnants of cargoes in Baltimore containing from 10 to 12 per cent. ammonia. A considerable quantity of Guanape in Government stores in Baltimore, analyzing in the neighborhood of 14 per cent. ammonia, has been bought and is held by a manipulator, and is not for sale. So, for "*Guanape*" guano, we shall have to look to New York for our supply, and the agents there offer this guano at a guaranteed uniform standard of 10 per cent. ammonia. They are keeping the higher grade cargoes for the purpose of mixing with those of a lower grade, and so maintaining the guaranteed standard of 10 per cent. ammonia. There is, however, a large quantity of guano from the "*Lobos*" Islands in Baltimore, containing 6 per cent. of ammonia and less, which looks and smells somewhat like, and is branded "*Peruvian Guano*," and which is sold at a reduction of three dollars per ton for each per cent. of ammonia it contains less than 10 per cent—that is, if it contains 7 per cent. ammonia it is sold at nine dollars per ton less than the *Guanape*; and there is nothing to prevent unscrupulous parties from selling it as Peruvian guano (which it certainly is) except that the agents have directed that the per centum of ammonia shall be stencilled on each bag of this guano, together with the name of the ship in which it was imported. The gentleman had seen the stencil to be used, and is of the opinion that the letters and figures are so small that it will be difficult for a person to find it on the bag, even if it should in all cases be put there, when he knows of its existence and is searching for it. The similarity in appearance and smell between this guano and the "*Guanape*" is such that unsuspicious buyers can be easily deceived; and if sellers choose to buy second-hand "*Guanape*" bags, which can be had in any quantity in Baltimore, and transfer the guano to them, there would be no possible way of detecting the fraud except by an analysis. There is one cargo of "*Lobos*" guano in New York which is said to contain 7 per cent. ammonia.

Large quantities of this "*Lobos*" guano are being bought and shipped South, and it will probably be offered as *Peruvian guano* at some five or six dollars less than is asked for the "*Guanape*," while a very simple calculation will show that it is really worth not much more than half as much.

In order to avoid any mistakes, buyers will do well to inquire particularly whether the guano offered them is "*Guanape*" or "*Lobos*," and what per centum of ammonia it contains, and, having bought, if "*Guanape*," see that that word in large letters is upon every bag they get. If *Lobos*, see that each bag has the guarantee per cent. of ammonia stencilled on it. The best guano is, as usual, in New York, and any coming from Baltimore should be inquired about carefully and closely scrutinized. X.

HOUSEHOLD DEPARTMENT.

MAKING COFFEE.—The making of good coffee is a very rare thing in this country. Most persons boil it, so making a decoction instead of an infusion; this effectually gets rid of the delicate and agreeable aromatic flavor, and leaves a comparatively tasteless beverage. The following particulars will be found worth attention: never buy your coffee ground, but grind it yourself immediately before using it; keep your coffee-pot, whatever kind you may use, wiped clean and dry inside, a damp tea or coffee-pot acquires a nasty flavor, that spoils the best tea or coffee. The cheapest, and perhaps the best coffee-pots, are those made on the French plan, called *cafetieres*; if you have not one of these, adopt the following plan: put your freshly-ground coffee into the coffee-pot, previously made warm, and pour upon it water actually boiling, set the pot by the side of the fire for a few seconds, but do not let it boil up, then pour a cupful out and return it back again to the pot, in order to clear it; having done this, let it stand on the hob or fender to settle, and, in less than five minutes, a transparent strong aromatic cup of coffee may be poured out. The proportions of coffee (which should not be too finely ground) recommended, are an ounce to a pint, or pint and a half of water.

A USEFUL DRUG.—Ammonia, or as it is generally called, spirits of hartshorn, is a powerful alkali, and dissolves grease and dirt with great ease. It has lately been recommended very highly for domestic purposes. For washing paint, put a tablespoonful in a quart of moderately warm water, dip in a flannel cloth and then wipe off the woodwork; no scrubbing will be necessary. For tak-

ing greasy spots from any fabric, use the ammonia nearly pure, then lay white blotting-paper over the spot and iron it lightly. In washing lace, put about twelve drops to a pint of warm suds. To clean silver, mix two teaspoonfuls of ammonia in a quart of hot suds. Put in your silver and wash, using an old nail-brush or tooth-brush for the purpose. For cleaning hair-brushes, etc., simply shake the brushes up and down in a mixture of one tablespoonful of ammonia to one pint of hot water; when they are cleansed, rinse them in cold water, and stand them in the wind or in a hot place to dry. For washing finger marks, from looking-glasses or windows, put a few drops of ammonia on a moist rag and make quick work of it. If you wish your house plants to flourish, put a few drops of the spirits in every pint of water used in watering. A teaspoonful will add much to the refreshing effects of the bath. Nothing is better than ammonia water for cleansing the hair. In every case rinse off the ammonia with clear water. To which we would only add, that, for removing grease spots, a mixture of equal parts of ammonia and alcohol is better than alcohol alone; and for taking out the red stains produced by strong acids in blue and black clothes, there is nothing better than ammonia.—*Providence Journal*.

TO MAKE SHIRT-BOSOMS GLOSSY.—Dissolve three ounces of clean, powdered, white gum Arabic in one pint of water. When thoroughly dissolved, strain it through a piece of cotton cloth, and bottle for use. One tablespoonful of this gum water, added to a pint of starch, will give a beautiful smooth gloss to cotton or linen fabrics.

A WIFE WHO FOLLOWED INSTRUCTIONS.—A Detroit of liberal education (says the *Free Press*) has been greatly annoyed because his wife and other women are not better posted on history and other matters connected with the growth or welfare of the country. The other day he carried home a big history and handed it to his spouse with the remark: "There, Mary, I want you to commence at page 1, and see if you can't learn something." She agreed to become his pupil, and when he came home to supper he found her reading away, hair down, slippers on, all the fires out but one, and no sign of supper. "Why, how's this," he inquired. "Are you sick?" "Sick! No." "Well, where's my supper?" "I don't know anything about your supper," she replied, as she settled back in her chair, "but I can tell you about the first discovery of Florida."

WHAT SHALL WE DO WITH OUR DAUGHTERS?—Teach them self-reliance.—Teach them to make bread.—Teach them to make shirts.—Teach them to wear thick, warm shoes.—Teach them how to make their own dresses.—Teach them that a dollar is only a hundred cents.—Teach them how to darn stockings and sew on buttons.—Teach them everyday, dry hard, practical common sense.—Teach them to say No and mean it; or Yes, and stick to it.—Teach them to wear calico dresses and do it like queens.—Give them a good, substantial, common school education.—Teach them that a good rosy romp is worth fifty consumptives.—Teach them to regard the morals and not the money of their beaux.—Teach them all the mysteries of the kitchen, the dining-room and the parlor.—Teach them that the more one lives within his income the more he will save.—Teach them to have nothing to do with intemperate and dissolute young men.—Rely upon it that upon your teaching depends a great measure the weal or woe of their after life.—Teach them that a good steady farmer without a cent is worth a dozen loafers in broadcloth.—Teach them the accomplishments, music, painting, drawing, if you have time and money to do it with.—Teach them that God made them in his own image, and no amount of tight lacing will improve the model.

FRANKNESS.—Be frank with the world. Frankness is the child of honesty and courage. Say just what you mean to do on every occasion, and take it for granted that you mean to do just what is right. If a friend asks you a favor you should grant it, if it is reasonable; if it is not, tell him plainly why you cannot. You will wrong him and wrong yourself by equivocation of any kind. Never do a wrong thing to make a friend or keep one; the man who requires you to do so is dearly purchased, and at a sacrifice. Deal kindly and firmly with all men, and you will find it the policy which wears the best. Above all, do not appear to others what you are not. If you have any fault to find with any one, tell him, not others, of what you complain. There is no more dangerous experiment than that of undertaking to do one thing to a man's face and another behind his back. We should live, act and speak out of doors, as the phrase is, and say and do what we are willing should be known and read by all men. It is not only best as a matter of principle, but as a matter of policy.

JEFFERSON'S TEN RULES.—1. Never put off till to-morrow what you can do to-day. 2. Never trouble another for what you can do yourself. 3. Never spend your money before you have it. 4. Never buy what you do not want because it is cheap. 5. Pride costs more than hunger, thirst, and cold. 6. We seldom repent of having eaten too little. 7. Nothing is troublesome that we do willingly. 8. How much pain the evils have cost us that have never happened. 9. Take things always by the smooth handle. 10. When angry, count ten before you speak; if very angry, count a hundred.

Elephants live for two hundred, three hundred, and even four hundred years.

LUCK AND LABOR.—Two boys left their country homes to seek their fortunes in the city. "I shall see what luck will do for me," said one. "I shall see what labor can do for me," cried another. Which is the better to depend upon, luck or labor? Let us see. Luck is always waiting for something to turn up. Labor will turn up something. Luck lies abed wishing. Labor jumps up at six o'clock, and with busy pen or ringing hammer lays the foundation of a competence. Luck whines. Labor whistles. Luck relies on chances. Labor on character. Luck slides down to indolence. Labor strives upward to independence. Which is likely to do the most for you, boys?

THE CUNNING COBBLER.—Many years ago, the husband of an old lady, living in Buckinghamshire, died without making his will, for the want of which necessary precaution his estate would have passed away from his widow, had she not resorted to the following expedient to avert the loss of the property. She concealed the death of her husband, and prevailed on an old cobbler, her neighbor, who was, in person, somewhat like the deceased, to go to bed at her house, and personate him, in which character it was agreed that he should dictate a will, leaving the widow the estate in question. An attorney was sent for to draw up the writings. The widow, who, on his arrival, appeared in great affliction at her good man's danger, began to ask questions of her pretended husband, calculated to elicit the answers she expected and desired. The cobbler, groaning aloud, and looking as much like a person going to give up the ghost as possible, feebly answered, "I intend to leave you half of my estates, and I think the poor old shoemaker, who lives opposite is deserving the other half, for he has always been a good neighbor." The widow was thunderstruck at receiving a reply so different from that which she expected, but dared not negative the cobbler's will, for fear of losing the whole of the property; while the old rogue in bed—who, was himself the poor old shoemaker living opposite—laughed in his sleeve, and divided with her the fruits of a project which the widow had intended for her sole benefit.

A MAN in South Hadley, who has just got out of a lawsuit, wants to obtain a large framed picture of a cow, with one client at the head and the other at the tail, pulling, and the lawyers meanwhile quietly milking.

An Englishman was boasting to a Yankee that they had a book in the British Museum, which was once owned by Cicero. "O, that ain't nothin'," retorted the Yankee; "in the museum in Bosting they've got the lead pencil that Noah used to check off the animals that went into the ark."

AN Iowa farmer cut open an old hornet's nest just to examine the inside arrangement. He says, he thinks he will be able to see his barn in about two weeks.

GRANT got off a small joke on his English son-in-law recently. As they were being serenaded one night, Grant turned to Satoris and asked, "What tune is that they are playing?" "'Ale to the Chief," replied the national son-in-law. "Go out and stop 'em, then, if they mean me. I prefer whiskey straight. 'Ale don't go down with me." Then the son-in-law of the administration looked foolish and tried to explain, while the bystanders laughed boisterously at the first and only joke of the present administration.

GOVERNMENT.—The early settlers of Connecticut proclaimed that the colony should be governed by the laws of God, until they had time to make better.

CONJUGAL GRATITUDE.—Frank Hayman was a dull creature. When he buried his wife, a friend asked why he expended so much on her funeral? "Ah, sir," replied he, "she would have done as much and more for me with pleasure."

KIND WORDS are the bright flowers of earth's existence; use them, and especially around the fireside circle. They are jewels beyond price, and powerful to heal the wounded heart and make the weighed-down spirit glad.

If you know anything that will make a brother's heart glad, run quick and tell it; but if it is something that will cause a sigh, suppress it.

THREE EMINENT PHYSICIANS.—As the celebrated French Physician, Desmoulins, lay on his death bed, he was visited and almost constantly surrounded by the most distinguished medical men of Paris, as well as other prominent citizens of the metropolis. Great were the lamentations of all at the loss about to be sustained by the profession, in the death of one they regarded as its greatest ornament; but Desmoulins spoke cheerfully to his practitioners, assuring them that he had left behind three physicians much greater than himself. Each of the doctors hoping that his own name would be called, inquired anxiously who was sufficiently illustrious to surpass the immortal Desmoulins. With great distinctness the dying man answered, "They are Water, Exercise and Diet. Call in the service of the first freely, of the second regularly, and the third moderately. Follow this advice, and you may well dispense with my aid. Living, I could do nothing without them; and dying, I shall not be missed, if you make friends of these, my faithful coadjutors."

Editorial—Farm and Garden.

This month is named in honor of *Mars*, the God of War of the Romans. It is usually ushered in with fierce blasts, which might seem to herald commotions and troubles, but "old Æolus" knows what he is about. He designs that the earth, which for three months has been sobbed by rains and snows, shall be dried off by his howling winds and stormy breath, and thus fitted for the peaceful work of the husbandman. The farmer must now stir himself, for his work for the year must commence in earnest.

SEEDING OATS.—We hope not many of our readers have neglected to sow oats in the fall. They cannot now look for much more than half the crop which they would have reaped, if sown in August, September or October. We hope those who have not thus sown, have prepared their land during the excellent winter weather we have had, and that they will be ready the very first suitable weather this month, to sow on land already plowed, and drag in rapidly. Do not sow less than one and a half bushels to the acre, and if the land is rich, two bushels may be sown. As soon as the oats are seeded, if it is designed to put the land in grass, sow one to one and a half gallons of clover, two bushels orchard grass, or one bushel orchard grass, and one bushel tall meadow oat grass. It is not necessary to wait for the wind to subside in sowing these seed. Sow with the wind, and make, if you think proper, some addition to the quantity seeded to compensate for those which may be blown in wrong places by the wind.

IRISH POTATOES must now be planted for early use, if not done in February. To raise large crops of potatoes, the land should have been manured last fall, and the manure turned in with a double plow. Liberal manuring is required to produce good crops. We find by reference to a "Report of the Transactions of the Highland and Agricultural Society of Scotland," Edinburgh 1873, that from 15 to 20 tons of good farm-yard dung, with 500 pounds of portable (commercial) manure is generally applied to the acre in "East Lothian," a famous agricultural section of Scotland, and that near Edinburgh, 40 to 50 tons of town manure are used to the acre. "Potatoes grown after pasture, are seldom damaged, but receive various quantities of phosphatic manures, and crops thus produced are usually the largest and soundest that are grown. The mixture used for the purpose, has generally been a selection of various guanos, together with dissolved bones: but latterly heavy crops have been produced by the use of the best bone manures, which supply a sufficient amount of ammonia and potash, as well as phosphates. In those cases fully 1600 pounds of portable manure per acre are applied." In "East Lothian," the average of potatoes per acre is stated to be 7 tons. Formerly, £30 to £35 was obtained for good fields; now £15 to £20 is considered a fair selling price, and £25 a high price, the crop being sold on the ground, to be lifted at the expense of the dealer. In Scotland and England, the land for potatoes and all root crops, is prepared the previous season by plowing in the manure 8 to 10 inches deep.

The above report says, "a difference of opinion prevails among farmers as to the market price at which it is prudent to stop the sale of potatoes, and use them for feeding purposes. The majority think if no more than 30s. (about \$7.50) per ton, can be obtained, they ought to be consumed on the farm, while a minority place them considerably higher in the list of feeding stuffs."

We know of no better potato for early planting in Virginia than the "Early

Rose." If manure is not scarce, we would spread it broadcast, thickly applied, unless the land is rich. If there is scarcity, apply it in the drill.

Ashes, and even coal ashes, which we have tried, produce good yield of potatoes, scattered along the trenches. Cut the potatoes to two eyes (in Scotland they cut to only one eye), and roll in plaster or ashes several days before planting, if convenient. Potash manures have been tried on potatoes, and with a moderate degree of success. In a paper contained in the "Report," above alluded to, ("Experiments with Potatoes, grown with Potash, and other manures, by Thomas Fergusson.") Muriate potash at a cost of £5 1s. per acre, produced 4½ tons, value £16 15s; Sulphate potash, cost £3 14s. per acre, produced 4 tons 12 cwt. valued at £17 7s; Calcined kainit, cost per acre £1 16s. produced 4 tons 13 cwt. valued at £17 1s; Crude kainit, cost £1 4s. produced 4 tons 4 cwt. valued at £15 10s. Where nothing was applied, the production was 2 tons 15 cwt. valued at £9 4s. Another writer, in the same Report, who made experiments with "Potash Salts" on light land, does not report so favorably of kainit, and says that either muriate of potash, or sulphate potash, is superior to kainit or other weak potash salt.

Mr. Fergusson, in his experiments, found that a mixture of both the potash salts and calcined and crude kainit with super-phosphate, Peruvian guano, dissolved bones and sulphate ammonia, at a cost of £4 per acre, produced 7 tons 6 cwt. per acre, valued at £27 8s. The general belief is, that in the use of kainit and potash salts they should be united with other fertilizers, particularly putrescent manures.

PREPARATION FOR CORN.—As the great work for next month will be planting corn, the land must now be prepared for it, if not previously done. Plow thoroughly, having previously hauled out all manures intended for this crop. If the supply is limited, reserve it to put in the furrows as the corn is planted.

VEGETABLES.—Garden peas, if not planted, plant at once. Beets, salsify, carrots, parsnips, radish, lettuce, &c., should be planted this month. Lettuce and cabbage may be transplanted. Celery beds must be sown now in cool, rich land.

STOCK must be still watched and protected from the keen winds of this month, for it is a trying month for stock. Not unfrequently we have deep snows and severe weather this month, from which stock suffer severely.

PRUNING AND SETTING OUT TREES may still be done this month, particularly if the buds have not started much. Grape vines must be trimmed, if not done, before the sap starts. This and next month are both good for setting out grape vines.

ASPARAGUS.—If new beds are to be formed, spade out the trenches 1 foot deep and 18 inches wide at top; spade in 4 inches good stable manure; then put down the plants and cover with fine dirt just enough to hide them; then put on 4 inches of good fine manure.

STRAWBERRIES AND RASPBERRIES may be set out this month, when the ground and weather are suitable. Stick to the "Wilson" for a market strawberry. "Triomphe de Gand" is probably the best of all table berries, but is a shy bearer. "Jucunda," "Lady's Finger" and "Charles Downing" are all better berries for the table than the "Wilson." The "Kentucky" is a late, good berry, but not so productive as "Wilson."

For raspberries, we advise "Philadelphia," "Clarke," "Coral" and old "Antwerp" for red varieties, and the "Mammoth Chester" as the only "black cap."

ERRATA.—In January No., article Notes for the Month, for "William Hill Carter" read Mr. Hill Carter. Same article, for "August pigs farrowed in January," read, "All pigs farrowed in January."

Editorial—General.

THE STATE AGRICULTURAL SOCIETY OF VIRGINIA—A REMEDY PROPOSED FOR ITS TROUBLES.

If the most distinguished men in a country as wealthy as Great Britain deem it of use to give much of their time to the consideration of agricultural improvement, how vitally necessary is it for a State like Virginia, depressed and needy as she is, *and with everything to gain by it*, to leave no opportunity unused to put this great interest on a foundation that will bring relief to her people.

The present condition of the State Agricultural Society is by no means flattering. The fact that it has gotten into debt shows plainly one of two things: either its constitution needs amendment, or the officers in charge of its administration are unequal to the task. As everybody connected with the Society is our personal friend, the views we submit will, of course, be in the abstract. Here is a great public interest, and it must be considered without reference to individuals one way or the other. We hope, indeed, that what we have to urge will provoke comment in every part of the State; and we promise, if our work is so favored, to digest the opinions ventured by our friends, and present the seed wheat resulting from it in a shape to be of service to those charged with the conduct of the Society. We are persuaded they will not be offended; on the contrary, be thankful for any suggestion that will render more efficient the institution whose success they have so much at heart.

It is proper, in the first place, to inquire what ends we might reasonably expect such a Society to subserve. 1. It should see that a full and accurate description of our soils is procured. The surface being broken up by volcanic action, and sloping from the level of the sea to an altitude of 2,500 feet, involves methods of operation so diverse as to render it impossible that any one general system should suffice for all. 2. To procure this and other desirable information, it should arrange a sub-society in each county. There is no lack of educated agriculturists all through the State who would be glad to give their service to any definite, business-like project promising improvement to the interest in which they are so much concerned. 3. It should mature plans for experiment (to be undertaken by the members of these sub-societies) in connection with the various crops on which our people depend for income. In these sub-societies all worthy men should find a place, when those who are well-informed could encourage to emulation those who are ill-informed. The Imperial Agricultural Society of Russia has a sub-society in each one of the fifty-two governments of the Empire, and they are all conducted in the most practical manner. The agricultural interest is advancing with the same progress as the other interests of the country, and we see an increase in Russian exports from £21,000,000 in 1863 to £55,000,000 in 1871. The reports of these experiments by the sub-societies sent to the mother society would be there digested, and the results given in its yearly transactions for the general benefit. 4. It should collect all reliable information concerning farm stock, and see in what portions of the State the different breeds thrive best. 5. It should ascertain the adaptability of the different sections of the State in the matter of fruit growing, including grapes and the business of wine making. 6. It should inquire into the feasibility of butter and cheese making for market. England alone now takes \$10,000,000 worth of American cheese. 7. It should consider systematically the question of farm labor, and examine into the merits of

all implements offered for farm service. These points indicate the general scope of the Society's work. The details are too obvious to need any recital here.

We will now consider the chief auxiliary of the Society, namely: its Annual Fair, and what should be done to make it effective? 1. *All provincial fairs must be abolished.* They are arranged, we imagine, more to put money into the pockets of tradesmen than to aid agricultural progress. Our people have neither the time nor the money to attend more than one such gathering in a year. But it must be held somewhere, and no place would appear to be so appropriate as the capital of the State, especially when it has the other advantage of a central location. 2. *As to live stock.* Each sub-society could settle upon some convenient point within its range where all the stock deemed worthy of exhibition could be inspected previously to the opening of the Fair. This would make a man who had a scrub ashamed, by comparison with the good stock present, to cumber the Fair grounds with it. In other words, excellence would be evidenced by every animal exhibited. 3. *As to machinery, implements, and manufactured products generally.* Inasmuch as no advertisement could be more effective than an exhibition of their merits at the Fair, this department can be left solely to the interest of the exhibitors; and hence no money need be wasted for premiums in that direction. 4. *As to farm and garden products.* All settled men work anyhow for the best income possible from their estates. So what they exhibit is entirely divested of any idea of emolument; rather pleasure in showing what sort of stuff they are made of. Encouragement should be directed specially to the YOUNG MEN, who know too little about work, but who are, nevertheless, the hope of the State. Premiums to them might take, say, this shape: For the best crop of tobacco (there should be one for "fancy bright," one for "sun-cured mahogany," and one for "shipping") produced on two acres, by a young man from 18 to 25 years of age, *with his own hands*, one hundred dollars in silver. Such premiums could be fixed for each of the staple crops (and they are not many) and for the best collection of vegetables, and also fruits. The details could be arranged by conference with some of the officers of the sub-societies, taken from different portions of the State. One and two-dollar premiums are like water in drops to a thirsty man—they annoy more than they benefit. 5. *As to the work of the ladies.* Without their smiles nothing can be well done; but as devoted as we are to their service, we do not see the propriety of allowing premiums on anything that is not more useful than ornamental. Hence, there should be provided a handsome piece of pure silver-plate for the best collection of useful needle work; also for the best collection of bread, butter, preserves, pickles, wine, and cake—in each case the work of one person. The love of the beautiful is so strong in woman that the ornamental comes of course, whether for the adornment of the person or the home. So premiums are needless there. These five points cover practically the substantial at the Fair; let us now consider the relish and the dessert: 1. *The race course.* Let the boys have all the races they please; they want no premiums. While it is true that the locomotive and the steamboat have well nigh finished the career of the horse, except for pleasure, and the plough and wagon, still he is a noble animal, and none of his accomplishments ought to be allowed to fall into decay. We suspect that not a few of the worthy gentlemen, who now wear frowns in the matter of the races at the Fair, saw the day when "OLD FAIRFIELD" had other attractions for them than the useful end "Boston" and "Fashion," and "Red Eye" and "Nina" might subserve in the direction of the stage coach and the pony express. Young people can't be

old people, else life would be divested of most of its sunshine. Besides, now that the war is done, the boys would be without other means of giving some show to the public of their skill and prowess, and the absence of these elements in a young man makes him a very sorry figure in the eyes of his sweetheart. Women use, but never admire, "spoonneys." 2. *The theatre and other proper amusements outside of the races.* Amusements are as necessary in this world as bread, anchorites always excepted and they perform no office but one of mere ballast. The town people never suffer from a dearth of shows of any sort. To the country people, from their very novelty, the enjoyment is exquisite. So the proper officer of the Society should give special attention to this matter. Any person who has to do with this business can put him in a way to induce first-class performers to be on hand during Fair week. Our country friends should not be compelled to put up, year after year, with the everlasting "Punch and Judy" arrangements that deface our Fair Grounds. The Fair should not only be an evidence of agricultural progress, to make thankful the hearts of the people and promote an extension of personal intercourse, but the week spent there should be full of joyous remembrances to cheer up the whole year, and this is no small matter with those away from the noise and bustle of city life.

Now, about the "men machinery" of the Fair: 1. *The judges.* These persons should be unknown to the public, and they should be paid for their services, and the name of the owner of the thing exhibited should be unknown to the judges. (In the matter of their selection, the officers of the Society can confer with the officers of the sub-societies.) Their judgment then will be made up, as it should be, *on the merits alone* of the thing offered; in other words, it will be divested of even the shadow of partiality. The judges should attend to their business *before* the Fair is opened at all to the public. They would be saved embarrassment in their work, and the winners would receive, what they deserve, the greatest possible publicity of the credit due them. Do not let it be a ribbon, but a large card with the word "Prize" on it, signed by the name of the secretary of the Society. 2. *The marshals.* These persons, of course, should be gentlemen. They should also be of such as have their private business so arranged as to enable them to give so many hours each day absolutely to the duties required of them. They should be made the general custodians of the good order of the place, and invested with the special duty of seeing to the comfort of the ladies. This latter consideration is vital to anything depending for its prosperity on the general public.

We have described the machine; we come now to the power that is to work this machine. THAT POWER IS THE SECRETARY OF THE SOCIETY. All the "shoulds" we have named, with the right man occupying this place, can be made living realities. This officer must be a young man, because his position will involve much bodily fatigue as well as mental labor: he must be selected for his administrative ability; he must have integrity, of course; and he must be paid a salary large enough to enable him to think of nothing else every day in the year but the good of the Society—that is, *he must have no other business whatever.* This officer is the pivot on which the Royal Agricultural Society of England turns. The Secretary will thus be able to attend to *every detail*, whether in respect of the general business of the Society or the special business of the Fair. When the Executive Committee meets, everything requiring their action will be so digested and arranged by him as to enable them to dispose of it without delay and with satisfaction. No architect is needed but the Secretary's own good sense and a

few plain workmen. He will so utilize the space enclosed in the Fair Grounds that we will find not a foot of it can be spared. In few words, the Society will become a working machine (which now it is not), fully able to do what is required of it.

We wish one of the Executive Committee (say Colonel ROBERT BEVERLEY, of Fauquier, who is noted for his great business ability) would construct a list of premiums based on the programme we have indicated. We think he will find that it will not take as much money as is spent now. In the one case, the premiums would command general emulation, especially in the young, where it is so much needed; in the other they are little better than thrown away for the good they do.

The trouble with us in Virginia lies in the too general disregard of *system*. We propose schemes of immigration without taking the least trouble to provide, in an authoritative way, what any immigrant of sense will demand to know before he will venture his capital in a permanent residence amongst us. He wants *definite information* about the State, not only generally in respect of its resources, but specifically; their adaptability to his situation in the direction of his training and his calling; the character of our roads, educational and church facilities, taxation, present and prospective, &c. In the same way we run our State Agricultural Society. It is intended to render valuable aid to agriculture and its surroundings. The money is spent simply on its adjunct, the Fair, and very badly spent at that. The lack of beneficial results is proof enough; explanations in the face of this avail nothing. The great preliminary matters necessary to make the Fair respectable, by the excellence of the exhibit it should make, have been almost entirely neglected.

It is a bootless business to find fault with details. Stopping the President's liquor bill will not cure the trouble. The whole matter must be revolutionized, and the Society put on a footing to command respect, *when patronage will come of course*. It will flounder forever if it has to depend upon officers whose service forms the merest "side show" in their business and their incomes. We are too poor to undertake very extravagant labors of love; that keeps no pot boiling. Responsibility presumes commensurate pay; and we must have responsibility to make our Agricultural Society the success that our situation so urgently demands. Arranged on a working basis, every man in the State, whether in city or country, would be glad to give of his substance to it, BECAUSE IT WOULD BE HIS PRIDE.

A word more and we have done. Is the principal reason assigned by the officers of the Society sufficient to authorize the holding of no Fair this year? We do hope that the spirit of our people is not so dead as to permit that Philadelphia job to absorb a dollar of their money or a moment of their time.

STATE TAXATION—LANDS UNDER MORTGAGE—WILL THE LEGISLATURE CONSIDER THIS MATTER?

We find the following in the *New York World*, of the 29th ultimo. As a step in the right direction, we commend it to the consideration of our readers, and especially the General Assembly:

"Mr. Ruggles, a Democratic Assemblyman for Steuben, introduced a bill to-day, which amends that part of the Revised Statutes relating to assessments requiring assessors to appraise real property at the value it would be taken as a just debt due from a solvent debtor by adding the following clause:

"Provided, that in assessing agricultural land against the owner thereof the as-

assessors shall estimate and assess only the value of the interest of the owner in such lands, after first deducting from the whole value of the land the amount of any mortgage given to secure the purchase money of such land, which is an existing lien thereon: provided, also, that assessing agricultural lands against a vendor in possession under an executory contract for the purchase thereof, or against any assignee of said contract in possession of said land thereunder, the assessors shall estimate and assess only the value of the interest of such vendor or assignee in such land remaining after first deducting from the whole value thereof the amount of purchase money unpaid by the terms of said contract."

"An extension of the provisions of this act to the city would go far to remedy the existing evils in New York City by relieving a large amount of mortgaged property from double taxation."

It is the general impression, we believe, in the country, that the banks in our cities are indifferent to the wants of the agricultural community in the matter of loans. We are persuaded that this impression is wrong, for the following reasons: 1st. Because *punctuality* is the very life of a bank, and our folks in the country are *not* punctual as a rule: 2d. our banking capital is very limited, compared with our needs, and so must be let out on short time, say sixty and ninety days, whereas, a farmer could not often borrow for a period much under twelve months, or rather, until his crops were marketed; and 3d. a bank cannot lend on mortgage, because, only the legal rate of interest could be charged, now six per cent, which, reduced by one and a half per cent. city tax, and a half per cent. State tax, would leave the lender but four per cent.; whereas, United States Bonds are non-taxable, and carry five and six per cent. gold. On the matter of taxing mortgages, we cannot do better than present the following from the pen of the eminent political economist, the Hon. DAVID A. WELLS ("*Local Taxation in the United States*"). It refers to action had in California on the subject.

"The question was one that for a considerable time had greatly interested the people of California, and the drift of popular sentiment, outside of San Francisco, seems to have been most unmistakably in favor of their taxation. But how to do it, and at the same time not increase the burden upon the borrower, who had mortgaged his land as a security for a loan of capital to improve or stock it, was a problem that not a little troubled the law-makers in Legislature assembled. One proposition brought forward contemplated a deduction from the amount of land tax of the assessment on the mortgage; but as the lands of California were found as a rule to be taxed far below their value, and the mortgages for a value far in excess of the assessor's appraisement of the land they covered, it became soon apparent that this scheme was, to greater or less extent, equivalent to exempting the land and taxing the mortgage. Another proposition embodied in a bill introduced into the Assembly by a member of the name of Wilcox, was to make void all contracts by which borrowers agreed to reimburse lenders in the amount of the mortgage tax: while others again were exceedingly strenuous in favor of trying the pleasing little experiment—which no community having once tried it ever desires to repeat—of providing that the person giving the mortgage should pay the taxes upon it, but be at the same time authorized to deduct the tax from the principal or interest in settling with his creditor. Pending these discussions, however, the Supreme Court, which had the question before it on a suit to which one of the savings banks of San Francisco was a party, rendered a decision, that in virtue of a clause in the constitution of the State, requiring all taxation to be equal and uniform, the taxation of mortgages was unconstitutional and illegal; inasmuch as to tax a given property and then tax a mortgage on it, which mortgage is not in itself property, but like a deed or a lease, is a species of conveyance or acknowledgment of a conditional interest or right in the property,

is not equal and uniform taxation, but an unequal and double tax on the property mortgaged. The importance of this decision, considered as an act reformatory of our popular theory of local taxation, does not require to be proved and illustrated; but as it is unquestionably a step in advance of any hitherto taken by either our Federal or State courts, and as, by reason of it, not only are mortgages now exempted from taxation in California, but also all promissory notes and other evidences of indebtedness, it is desirable briefly to ask attention to the reasoning by which the Court was led to its decision. The opinion was given by the Chief Justice, CROCKETT, who, after reviewing the history of the case, used the following language: I come now to the point, whether a tax on land at its full value and a tax on a debt for money loaned, secured by a mortgage on the land, is in substance and legal effect a tax on the same property. We all know, as a matter of general notoriety, that almost universally, by a stipulation between parties, the mortgagor is obliged to pay the tax both on the land and on the mortgage. Practically, he is twice taxed on the same value; if he has still in his possession the borrowed money, to secure which the mortgage was made. The law taxes in his hand both money and land; and by his stipulation he is required to pay tax on the mortgage debt, and also, if the money has passed out of his hands into the possession of some other tax-payer, it is taxed in the hands of the latter, so that the money bears its share of taxation, and the land its share, in the hands of whomsoever they may happen to be.

It is very true that a voluntary agreement on the part of the mortgagor to pay the tax on the mortgage debt cannot improve its *situs*. The State was no party to the contract, and is not bound by stipulation *inter alias*. The burdens of taxation cannot be shifted from those on whom the law imposes them, by stipulations between private persons; but in the absence of such a stipulation, an inexorable law of political economy would impose upon the mortgagor the burden, in a different form, of paying the tax on the mortgage debt. Interest on money loaned is paid as a compensation for the use of the money, and a rate of interest as agreed on is the amount which the parties stipulate will be the just equivalent to the lender. If, however, by the imposition of a tax on the debt, the government diminishes the profit which the lender would otherwise receive, the rate of interest will be sufficiently increased to cover the tax, which in this way will be ultimately paid by the borrower. The transaction would be governed by the same immutable, inflexible law of trade, by reason of which import duties on articles for consumption are ultimately paid by the consumer, and not by the importer. The rate of interest on money loaned is regulated by the supply and demand which governs all articles of commerce; and the burdens imposed by law in the form of a tax on the transaction, which would thereby diminish the profits of the lender, if paid by him, will prompt him to compensate for the loss by increasing to that extent the rate of interest demanded. If his money would command a given rate of interest without the burden, he will be vigilant to see that the borrower assumes the burden, either by express stipulation, or in the form of increased interest. This is a law of human nature which statute laws are powerless to suppress, and which pervades the whole of trade governed by the law of supply and demand. Nor would the enactment of the most stringent usury laws produce a different practical result. Human ingenuity has hitherto proved inadequate to the task of devising usury laws which were incapable of easy evasion; and wherever they exist they are, and will continue to be, subordinate to that higher law of trade which ordains that money, like other articles

of commercial value, will command just what it is worth in the market, no more and no less. Assuming these premises to be correct, and I am convinced that they are it results that it is the borrower, and not the lender, who pays the tax on borrowed money, whether secured by mortgage or not; but if secured by mortgage, he is taxed not only on the mortgage and property, but on the debt which the property represents, and which is held as a security for the debt.

"Of the soundness of this decision (observes Mr. Wells), there could probably be no more convincing illustration than the statement that, upon its announcement, the savings banks of San Francisco, gave notice that they would immediately reduce the rate of interest on their loans secured by mortgages, by the amount of the tax on the mortgage. * * * Merchants, bankers, and taxpayers generally received the news with the feelings of men who felt relieved from a terrible incubus."

Now, is this "terrible incubus" absent from our farming community? We know of no feasible way by which they can command money outside of mortgage; and the law should be so arranged as to enable them to get it in this way *at the very lowest figure*. To our mind, the advantages are so apparent, that we hope the example of California will not be barren of results in Virginia.

THE UNIVERSITY BILL.

The bill before the Legislature, in this connection, looks very like a time-serving arrangement that would turn this venerable abode of learning into an educational poor-house. The receipt of anything, without the tender of value, with obvious exceptions, makes a beggar of the recipient, and this is no sort of material to build the future of this Commonwealth upon. How are men made? By the aspiration to rise from a lower to a higher position. What does this involve? Self-dependence and self-assertion. How can this feeling enter the heart of a child when *he knows* that he has been made the subject of *charity*? It is a matter of perfect indifference whether the alms are given into his hand by a person or by the State. He is bound to understand that men who have labored and toiled to accumulate property, are compelled to give of their substance to take the care of him that nature devolved upon his parents, and upon them alone. The child, getting his schooling through his parents, gets it from himself. Looked at any way, this education of people's children at large, at the public expense, is legal robbery, pure and simple, and a most excellent hobby for demagogues to ride into place upon where universal suffrage prevails, as the property holders are invariably in the minority. A vote costs nothing, any negro has it, and the men are not few in this world who would gladly transfer their burdens to other people's shoulders, when the means necessary to accomplish it can be found in as cheap a thing as a vote. Starting out, then, on his career, with this incubus steadily crushing out of him all feeling of independence, the child becomes fit material for the use of tyrants. We have a perfect example of the effect of this public school charity arrangement, in the ease with which the Northern people surrendered to their rulers, during and since the war, almost every vestige of liberty. We know of no country under the sun, claiming to be free, where Mr. SEWARD could have used his little bell as he did in this. It was not possible for Germany to arrange any scheme involving *perfect subjection* equal to compulsory schools. The idea of "THE STATE" swallowed up the individuality of the man; and GRANT, who is no fool, has not studied this lesson in vain. The public school (and he wants it compulsory), is his key-note, and that played on long enough will make both North and South a race of slaves.

By general consent, the University has been assigned a position not enjoyed by any other institution among us. Like a court of Justice, we attach to it the idea of a general public utility, to an extent to make us willing, if it needed our aid, to extend it gladly. On any other basis, it would be without desert, and certainly on that which appears to be the import of the bill in question, its doors had better be closed forever, and all recollection of it stop at a point before it suffered even the shadow of anything that would dim the lustre of its name.

SOMETHING THAT SHOULD FLATTER THE PRIDE OF EVERY HONEST VIRGINIAN.

Nothing ought to be more distasteful to a man who reverences authority, than to find fault with "the powers that be." Looking at the *personnel* of the present Legislature, we had great hopes of good work at their hands this winter; but week after week has passed, and if anybody can point out what particular benefit the State has enjoyed through their labors, we would be glad to see it, and more, give it all the credit it deserves. We know to our sorrow that a certain number of dollars of the public money is spent every day, and we look in vain for the voucher: "*Money earned.*" It does seem, furthermore, that the desire to "bank," and to study the history of "The Four Kings," grows and grows with each year's meeting of that august body. The FOWLE-STEVENS business is a lovely spectacle for a State groaning with poverty and trouble, and where taxes mean the very heart's blood of the people. *How can they longer permit this body to afflict them as often as once a year!*

A community may be badly off in many ways; but it must be like old Mr. TIMBERLAKE, "in a very low-life state of health," to refuse to pay what is really necessary to provide the means of protection to its persons and property. Our people, as poor as they are, would not murmur if they *knew* that the money they gave was administered with economy, and that their representatives were representatives indeed. As it is, we are bound by the acts of these people, and there is no escape—except to decree that their acts shall be as few as possible.

With sessions at longer intervals, the thing known as a carpet-bagger, from the lack of something to feed on, would go back to the region that gave him birth, and where otherwise he is perfectly at home; and the quiet resulting from a cessation of office-seeking agitation would bring the negro to better behavior, and doubtless rid our legislative halls of the awful degradation of his presence.

A WORD ABOUT THAT BOURBON.

A voice from the mountains says we are a Bourbon. Now, one might belong to very much worse families in this world. Our ensign armorial is three frogs rampant, which shows plainly that we are not ashamed of our muddy origin, to say nothing of our name itself, and while our cousins BOMBA and ALFONSO's mama might be considered by some people "black sheep," (most families are troubled more or less in this way), our cousin, HENRY OF NAVARRE, redeemed us all. Our friend may, however, mean the kind of Bourbon they have in Kentucky, (to which soft impeachment we might plead guilty, especially about Christmas time), but we presume we get nearer to the fact when we say that he regards us as one who "learns nothing and forgets nothing."

We accept it, and say that we, in Virginia, do not forget that we have traditions as dear to us as our lives, and that in the preservation or surrender of these tra-

ditions we will find our rise or fall. They are a heritage to those after us more precious than gold, breathing as they do of a liberty that brooked not tyrants, and of an integrity that knew no tarnish. We do not forget our past, and are bound that our children shall not forget it. It will bear nursing. We refuse to learn that, in our failure to maintain the vital principle of our system, "THE CONSENT OF THE GOVERNED," through the crushing power of the brute force brought against us, we surrendered our belief in the truth of that principle; we refuse to learn that good faith requires us to accommodate ourselves to the ways of our conquerors; we refuse to learn that the degradation of morals, and the decay of religion, so universal in the North, should become the rule with us; we refuse to learn that *any* of their institutions are necessary to aid our progress to better times; in short, we refuse to learn that Virginia, *if she will*, is unable to take care of herself in all things, and under all circumstances.

We do not observe, looking at the eaters of humble pie, either in Virginia or elsewhere in the South, that respect has followed fawning. And it never will.

THE BUREAU OF AGRICULTURE, STATISTICS AND MINES.

We understand, from the proper authority, that no action will be had at this session of the legislature on this, to our mind, vital matter. It must excite great pride in the breast of a Virginian for him to answer a foreign capitalist seeking to invest his money with us: "We have great natural resources; water power without end, although I can't tell you exactly where it is located or what its horse power is; mines of coal and iron, the people on whose lands they are found will show you the specimens; who these people really are I don't know; we make a big crop of tobacco, and this crop is expressed in *hogsheads*, which may weigh 500 pounds or 2000 pounds, and this, of course, enables us to see, to the exact pound, how much we raise; we have plenty of land, but whether it suits you or not you must find out; it is none of my business to be prowling around to find out things of this kind; and so forth, and so forth, and so forth." To a people who claim to be needy, it must be a source of great satisfaction to know that their representatives in the legislature so exactly fill the measure of usefulness, as demonstrated by every session since the war, especially the present one.

AN ESTEEMED CORRESPONDENT of Colorado in a private note says:

I would advise no Southern man to leave his own section to come here to better his fortune; nine times out of ten he will be disappointed. If I can dispose of my interest here, at any reasonable figure, I expect to make myself a home in the South. There are advantages there that no other part of the United States have, in her genial climate, her rich and varied agricultural productions, and accessibility to home and foreign markets—advantages that are not surpassed by any parts of the world.

Let the good people of the South only display the same industry and energy in improving their plantations, and developing their rich and varied material resources, that they have on the field of battle, and they will have a country that will be the admiration of the world.

Born and reared south of Mason and Dixon's line, my heart has ever been with the South, and I have ever felt deeply for their sufferings and misfortunes, and trust there is a brighter day for them in the future.

[We will have something to say ourselves on this subject after awhile.—Ed.]

A NEW PAPER ON COTTON.—We have had laid on our table a pamphlet just issued by the Southern Fertilizing Company, of this city, entitled: "*The Cotton Question.*" It is an inquiry into the standing and prospects of the Cotton States of America, in comparison with the production of cotton in the rest of the world, and especially India. It shows that although India and other cotton growing countries have gained immensely over 1860, as compared with this country, in their supplies to Europe, still it is possible for our cotton country, by prudent management, to again secure a practical monopoly of the supply. The facts presented are from the most trustworthy sources, and we cannot afford to let go unheeded the lesson they teach.

ROBERT H. CROCKETT.

The subject of this sketch, whose picture forms the frontispiece of this number, was born in Wythe county, Va., in 1823. His father, Charles Lewis Crockett, was not only known as an enterprising and progressive farmer and grazier, but was a ripe scholar, and a man of high literary attainments; was an example, through a long life as a model man for all ages and all classes of men. He not only devoted a long life to the advancement of agriculture, but kept an eye to State affairs, and as a christian, had a record that the best might envy. He was frequently elected to both branches of the State Legislature without ever seeking it, and it mattered not whether at Richmond in the capacity of a politician, or following the quiet avocations of farm life, he was the same stern, devoted christian, the man without a spot, and without a blemish. His son, eager for the active life he intended to lead, left school while in his teens, and embarked in the cattle trade, to which he has devoted the greater part of his life. He purchased a farm while quite young, the greater part of which was covered with timber, which he soon removed, and there are now but few stumps to be seen, and it is clothed with a smooth sod of grass, upon which may be seen one of the finest flocks of Cotswold sheep in this or any other country. He turned his attention to sheep at an early age, and has kept up his flock by purchases from the best importations. Not satisfied with that, he went to Canada, to select in person, cattle, sheep and hogs. He has devoted thirty years of his life to the improvement of the stock in Southwest Virginia; he has labored untiringly with his people to improve their stock, until there are now but few scrubs to be found in his section, and the highest priced beef sold in the New York and Philadelphia markets is from Southwest Va. He not only advocates the improvement of their stock, but so earnestly impresses them with the importance of getting their land to a higher state of fertility, that the surface of the Southwest will soon be clothed with a coat of living green.

It was his devotion to agriculture that induced the President of the Agricultural Society of Southwest Virginia to select him to deliver the annual address before that Society, the only farmer, with the exception of his father, that was ever chosen for that occasion, and he was the only orator that boldly and fearlessly opened the eyes of the farmers of that section to their true condition. No man has done more for his country, as an improver of stock, than R. H. Crockett. For years he has given more for the stock of his section than any one else would give, and had to handle them well to hold his own.

Not satisfied with marketing cattle in the Atlantic cities, his restless

and unstabled spirit must find a wider field for action. So off he goes for the prairie lands of the West, and in Illinois, makes a large purchase of sheep and cattle, turns their heads to the setting sun, steadily and patiently pursues that course, until he finds himself on the grassy banks of the San Gabriel, in the Valley of Los Angeles. This was no ordinary undertaking.

It was in the year 1852, when the Federal Government had equipped Fremont with all that heart could desire, to learn the practicability of making a railroad through the unexplored regions; Fremont attempted to cross the Rocky Mountains near the Spanish peaks on the snow; he lost nearly all his mules in the snow, and had to go to Santa Fee, in New Mexico, to recruit, some one hundred and twenty-five miles. Crockett found a pass in the mountain some forty miles north, and succeeded in getting through, but when west of the mountains of snow, found that he was just getting into trouble; he had passed through various tribes of Indians, some so wild that they would not venture near, except at night, when a strict watch had to be kept to keep them from running the stock off. He has passed the Neblanca, whose high peaks are bathed in the blue clouds of Heaven. The Indians, buffaloes, wolves, all that is savage as well as civilized, are behind him; before him is desolation and chaos. No living thing to be seen or heard but the disheartened men, the wearied and hungry beasts that are with him. But on he moves, like Napoleon amid Alpine rocks, or Russian snows; The surface was rough, no water, no grass; mountains of eternal snow on the right, hostile and savage Indians on the left; onward is the word by day as well as by night, but he has no pillar of fire to lead him; finally, after losing many of his animals, he comes to scant pasture and bad water. But the great Wasatch is to cross, covered from base to base with snow, but he crosses it, consuming the entire day, and finds himself on grass sufficient to recruit his stock, which continues to the Sierra Nevada, which he crosses on the snow, the 24th of December, having been seven months on the trip.

He traveled by land from Lower California to Oregon, passed through Central America on horse-back, has been through most of the Northern and Western States, through the best portion of Canada, and says he has found no country that has so many natural advantages as Southwest Virginia.

He expects to spend the balance of his days where his grand-father located before the Indians had all left the country. He is now representing his county in the House of Delegates, sent there against his earnest protest, and finds it the greatest humbug of this or any other age.

WHAT SOME OF OUR FRIENDS SAY ABOUT THE PLANTER AND FARMER.

GEN. FITZHUGH LEE: * * * "At the very foundation of State and individual existence lies *agriculture*. Every effort should of course be encouraged which tends to throw the light of knowledge and experience upon its path. For this reason I shall cordially recommend your journal whenever opportunity offers. The liberality and enterprise exhibited under your management has given the *Planter* a position which will command the support of our people."

HON. B. JOHNSON BARBOUR: "I speak the common opinion of our whole section in saying that the *Southern Planter and Farmer* is not only conducted with a zeal and ability worthy of its ancient fame, but it is especially commendable for the *courage* with which it grapples the novel and pressing questions of the day; for there *are* many questions which the politicians would varnish over for the time with the specious show of a hypocritical policy, whilst all who have duly pondered these problems feel that not only our welfare, but probably our very existence as a people, depends upon their full and free discussion and proper solution. For this praiseworthy spirit, together with your careful review of the general interests of agriculture, your paper deserves and should command the hearty support of our people."

COL. RANDOLPH HARRISON: "Let me congratulate you upon the *complete success* of your efforts to place the *Planter and Farmer* in the front rank of the agricultural journals of the country. I can assure you that your work is appreciated. I am constantly hearing comments upon the wonderful improvement in the *Planter*. The 'Notes by the Editor' is a most valuable feature. I trust you will continue to give us these sparkling '*critiques*' and '*clinchers*,' if I may so call them, to the excellent articles with which your journal is stored."

COL. ROBERT BEVERLEY: * * * "I see most of the agricultural journals of the country, and I don't hesitate to say that the *Planter and Farmer* is by far the best of the kind I see, and almost any number of it is worth the annual subscription."

COL. S. S. BRADFORD: "I believe that every Virginia farmer who regularly and intelligently reads the *Planter and Farmer* has its annual subscription returned to him an hundred fold. And if it reached every farmer in the State would effect more, in a very few years, towards the State's redemption and the payment of her debt, than such Legislatures as we have had since the war would accomplish in a century."

CAPT. R. J. HANCOCK: "I have taken several agricultural papers since the war, and most unhesitatingly pronounce in favor of the *Planter and Farmer* under its present management. It is the equal of any in a farming point of view; and I admire its *genuine Southern sentiment*."

MAJOR S. W. FICKLIN: * * * "I have been a subscriber to the *Planter and Farmer* since 1843. I have never known it to be more ably conducted than at present. I recognize your correspondents as being *our best farmers*, and their articles are suited to our climate, pursuits and surroundings. I never feel more refreshed and encouraged than after reading your journal. I like your foot-notes and your Southern sentiments."

DR. L. B. SPENCER, North Carolina: * * * "It is my opinion that the *Planter and Farmer* is one of the ablest agricultural journals in all this land. I think every intelligent farmer and planter in all our Southern country should see a copy. It inculcates sound morality, a wise discretion in all that pertains to the welfare of the country, and the most judicious advocacy of every plan for improving farmers and their farms."

DR. D. S. WATSON sends ten subscribers, and says: "It is the univer-

sal opinion of all with whom I have talked on the subject, that under the present management your paper has rapidly been brought to be a *first-class agricultural journal*."

MAJOR R. L. RAGLAND: * * * "With very great pleasure I note the commendable ability with which the *Planter and Farmer* is now conducted, and congratulate you in deserving the good things said of this veteran agricultural journal, never more worthy than now of the confidence and support of its appreciative readers."

EX-GOV. WILLIAM SMITH: "I will commence that series of articles for the *Planter and Farmer*, which I promised, at an early day. * * * Having been a regular reader of your valuable periodical for quite a number of years, with great profit and advantage to myself, I feel very properly, I trust, a great desire that its circulation should be greatly enlarged and diffused, satisfied that it would soon show its value in the improved culture and renovation of our wasted and worn-out lands. I sincerely hope that your noble efforts in the cause of our great interest, agriculture, may be crowned with the most satisfactory success."

MAJOR A. M. BOWMAN: "I am much pleased with the great improvement you have made upon the *Planter and Farmer* in the last six months. For variety of matter and its adaptation to the interests of the Southern farmer, your paper has no equal. Certainly no Virginia farmer can afford to do without it."

GEO. C. PATTERSON, Esq., Maryland: "My February No. has just reached me. I not only like the paper for the vast amount of practical agricultural matter it contains, but I see from your comments on the late admirable address of Col. Barbour before the Agricultural Society of Virginia, that—well, to sum up my opinion in the most practical way, your paper should be taken by every farmer in and out of the State who would uphold her past glorious history."

WM. W. LANY, Master of Texas State Grange: "I read your paper with much satisfaction, and think that it will do much to improve Southern agriculture. I like the *practicable* suggestions and ideas I find in its columns."

J. H. NUNNALLY, Esq., North Carolina: * * * "I have been a constant reader of the *Planter and Farmer* since 1868. I have never known it to be better edited than at present. Could not get along without it."

JOHN J. ANCELL, Esq.: "I send you a club. * * * I think the *Planter* is invaluable to any progressive farmer. The series of articles by 'CIVIS' are worth your subscription price."

WM. OVERTON, Esq.: "Send me a duplicate copy of January No. CIVIS' article and BARBOUR's address in that No. are worth \$2."

A. GAINES, Esq., Kentucky: * * * "I have been taking from three to five agricultural periodicals for the last five years, and I must say, in all candor, your journal is by far the best and most practical I have ever seen for our section."

W. C. LAMONT, Esq., New York: "I read your *Southern Planter and Farmer* with great pleasure and profit; and although especially adapted to Virginia and the Carolinas, its limits for good are not pre-

scribed to those States. It will be highly valued wherever the real interests of the farmer are appreciated. Yours is a mission which deserves success."

COL. J. RAVENSCROFT JONES: * * * "I would be glad to know that the *Southern Planter and Farmer* was in the hands of every planter and farmer in Virginia. As the principal organ of the agricultural interests of the State, its prosperity and success would indicate, in no small degree, the progress and improvement in our agriculture which the times so strongly demand. At no time in the history of your journal has it been conducted with more spirit; and I think that every reader will concede the honesty which controls its management."

GEN. JAS. G. FIELD: * * * "As a subscriber to, and regular reader of, the *Southern Planter and Farmer*, I am not only interested in its articles, but feel very much instructed by them. The articles are generally written by intelligent farmers, and are based upon *applied theory*; in other words, upon the results of theory applied to practical and every-day farming. This is the fountain from which farmers, like myself, inexperienced, should drink deeply. As this paper is ably and wisely edited, I hope it will be generously sustained by the farmers of Virginia and the South."

GEN. G. S. MEEM: * * * "I am satisfied were the merits of the *Planter* known that its power to do good would be greatly enlarged. Virginia should certainly have one agricultural paper within its borders which should be the medium of an interchange of views by its farmers. It gives me great pleasure to bear testimony at all times to the efforts you are making to build up and foster, through an attractive and most useful journal, the leading interest of the State."

HON. JOHN S. BARBOUR: * * * "Allow me to express my high appreciation of the value of the *Planter and Farmer* now under your editorial control. I have been especially impressed with the information contained in the recent numbers, and regard your publication as doing very much to advance the agricultural interests of Virginia and the South."

DR. C. R. CULLEN: "I send you a club of fifteen subscribers who are live farmers, and know a good farming journal from an indifferent one."

JAPAN PEAS.—We have seen some of these new peas raised by a farmer in Chesterfield. We like them very much. The advertisement of a firm in Tennessee states that they will yield 200 bushels per acre. Our friend says that he thinks from his experiment, that they will yield at least two or three times as much as corn on the same land, and that they are worth more for feed, bushel for bushel, than corn. They are no more trouble to raise than corn.

We understand that Allison & Addison have them for sale. We have made arrangements for an article on their culture in our next number.

MALTY HOUSE, BALTIMORE.—This old established house deserves the patronage of our people. It is more conveniently located than any other first-class house in Baltimore, and the gentlemanly proprietor has made every arrangement to insure the accommodation of his guests; when we add that the charges are much lower than any other similar house in the city, we have mentioned one or two reasons why we ought to stop there when in Baltimore. Our friends who visit Baltimore on business, or pass through there to the Centennial, should not fail to give the Maltby a call.

ROBERT HUME advertises "Eureka Food for Cattle" in this issue. Read what he has to say about it, and send for his circular containing certificates, &c.

THE annual Vegetable and Flower Seed Catalogue of Gregory, the well-known seedsman of Marblehead, Mass., is advertised in our columns. We can endorse Mr. Gregory as both honest and reliable. The bare statement of the fact that he grows so large a number of the varieties of seed he sells, will be appreciated by market gardeners, and by all others who want to have their seed both fresh and true.

OUR trade with Southwest Virginia is gradually coming to us, and we have here to represent it Mr. F. Sanders, of Smythe county, with Taliaferro & Loving, Commission Merchants, who is ready at all times to serve his friends in any capacity. Mr. Frank Staley, Smythe county, with Yancey Franklin & Co., in the notion business, who is doing well in his line. Mr. Arthur Davenport, Washington county, with Thaxton & Nicholas, in the notion business, is also doing well. Mr. John Venable, Smythe county, with Gardner, Carlton & Baldwin, in the shoe trade, speaks well of his business.

We are pleased to hear all these gentlemen speak of their past success and future prospects.

WE call attention to PREPARED AGRICULTURAL LIME, advertised by A. S. Lee. The price being low, puts it within the reach of all, and its ingredients are such as will, with a proper return of vegetable matter to the soil, render the improvement durable.

ROBERT BINFORD, ESQ., sent us a club of 15 subscribers, and says: "I would not be without the *Planter and Farmer* for many times the cost. There is hardly a number that does not contain an article worth the subscription." * * *

WE call special attention to Colonel McCue's advertisement of some valuable agricultural journals; they are neatly bound, are very valuable to any farmer. The Colonewill sell cheap.

1876. THE SOUTHERN 1876.

PLANTER AND FARMER,

ESTABLISHED IN 1840.

AS AN ADVERTISING MEDIUM,

It furnishes a Cheap and Efficacious means of reaching the
Farmers of the whole Southern Country.

It goes into almost every neighborhood in Virginia, North Carolina, West Virginia, Kentucky and Tennessee, and is also largely circulated in the more Southern States.

TERMS FOR ADVERTISING.

One square, 10 lines or less, one insertion.....\$2 00	1/2 page six months.....\$55 00
1 square of ten lines for six months.....10 00	1/2 page one year.....100 00
1 square of ten lines for one year.....15 00	1 page, single insertion.....20 00
1/4 page six months.....30 00	1 page, six months.....100 00
1/4 page one year.....55 00	1 page, one year.....180 00

Outside back Cover, double rates; inside back Cover, 50 per cent. added to rates. No advertisements taken for front cover. No editorial notice given to advertisements on any consideration but notices &c. may be put in *Publishers' Department* at contract prices.

No charge for advertisements of less than two dollars.

Bills of regular advertisers payable quarterly, if inserted for three or more months.

Payable monthly if inserted for less than three months. Transient advertisers, cash in advance.

To insure insertion, we should receive advertisements by the 25th day of the month preceding that in which they are to appear. We adhere strictly to our printed rates.

All communications to be addressed to

L. R. DICKINSON, Box 54, Richmond, Va

GREAT CLOSING OUT SALE!

PREPARATORY TO MAKING OUR SPRING PURCHASES.

Excellent Calicoes at 6½, 8½, and 10c. per yard; Plaid Cambries, yard wide, at 12½c. per yard, worth 20c.; Wash-Poplins at 10, 12½, and 16¾c. per yard, all worth 25 per cent. more.

Handsome Plaid Dress Goods at 20, 25, 30, 35, and 40c. per yard—a reduction of from twenty-five to thirty-five per cent. has been made in these goods.

Best quality Hamilton Tycoon Reps at 20c. per yard, worth 30c.; a large lot of remnants of Dress Goods at a sacrifice.

Elegant double-width Plaids, for over-suits, at \$1.25 and \$1.50 per yard, worth \$1.75 and \$2; Black Alpacas at 25, 30, 35, 40, 45, 50, 55, 60, 65, 75, 85c. and \$1 per yard; the best goods for the money ever offered in this city.

Black Silk-Finish Mohair at 50, 60, and 75c., worth 85c. and \$1 per yard, as handsome as a silk, and all very cheap; Australian Crepes at 50, 60, and 75c., worth 65, 75c., and \$1 per yard.

Black French Merinoes and Cashmeres in all quantities at greatly reduced prices; Black and Colored Silks in all quantities at extraordinary bargains; all other styles of Dress Goods at reduced prices.

Utica 9-4 Bleached Sheeting at 33½c; 10-4 at 35c., and 12-4 at 40c.—these prices are lower than ever offered before; full-width Bleached and Unbleached Sheeting at 25c. per yard.

Red Twilled Flannels, all wool, at 30, 35, 40, 45, and 50c. per yard—from 10 to 15c. per yard below regular prices; Blue Twilled Flannels at same prices; Gray Twilled Flannel from 25 to 50c. per yard; White Twilled Flannel at 30, 40, and 50c. per yard.

Plain White, Red, Yellow, and Gray Flannels from the lowest to the best qualities; Embroidered White Flannel.

Colored Blankets at \$1.50, \$2, \$2.50, and up to \$6 a pair; White Blankets at the best bargains ever offered. We beat the best auction out of sight on these goods.

Calico Comfortables—home-made—at \$1.50, \$1.75, \$2, \$2.50, and \$3, all made of good calico and quilted with pure cotton; three, four and five thread Unbleached Knitting Cotton at 30c. per pound; White Knitting Cotton, in balls, all sizes from six to twenty, at 60c. per pound.

Carpet Warp in all colors, the best manufactured, at \$1.75 per bundle of five pounds; Cotton Yarns, all sizes from four to twelve, at \$1.15 per bundle of five pounds.

Corsets in all qualities, from 40c. to \$6 per pair. We call particular attention to our 110 bone Corsets at \$1.15 per pair, worth \$1.75; excellent two-button Kid Gloves at 75c. and \$1 per pair, and four-button Kid Gloves at \$1.50 per pair.

Pure Linen Table-Cloths, two yards long, at \$1, worth \$1.50; Linen Doilies at 60, 75c. and \$1 per dozen, worth 75c., \$1 and \$1.20; Linen Napkins at \$1, \$1.25, \$1.50, and up to \$6 per dozen; Huckaback Towels at \$1.50, \$2, \$2.25, \$2.50, \$3, and up to \$12 per dozen—all extremely cheap.

Parties ordering goods to be sent by mail will please enclose postage. We have but one price, and sell for cash. Goods sent by express C. O. D., or as directed, upon the receipt of the money or its equivalent.

LEVY BROTHERS,

Jan

1017 and 1019 Main street, Richmond, Va.

NOTICE TO TOBACCO GROWERS,

Reduction in Price of

ZELL'S

—CELEBRATED—

TOBACCO FERTILIZER!

Unrivalled for the TOBACCO CROP. For sale by agents and dealers throughout the country.

PRICE, \$50 PER TON AT BALTIMORE.

Dissolved Bone Super-Phosphate

supplied to Manufacturers and Dealers at low figures.

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1824. Richmond Whig. 1876.

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For One Year.....	\$6 00	\$4 00	\$2 00
To CLUBS—of 5 and under 10, each	5 00	3 50	1 50
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OIL VITRIOL

AND OTHER CHEMICALS,

Works on Locust Point, }
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Baltimore.

PREPARED AGRICULTURAL LIME

The best and cheapest preparation for Tobacco, Cotton, Corn, Clover and other Grasses, Peanuts, Potatoes, Turnips, &c. Only \$12 Per Ton Cash, delivered at the various Depots of the City.

It is specially adapted to the growth of Cotton and Tobacco, as will be seen by the several Certificates herewith.

☛ This preparation consists of Carbonate of Lime, Sulphate of Lime, Potash and Chloride of Sodium, and the manner in which they are combined renders each one more effective.

But to the testimony.

TOBACCO.

Mr. P. C. RUSSELL, of Wyliesburg, Charlotte county, Va., says: "I used a small quantity of your Prepared Agricultural Lime on part of my Tobacco crop, using composts on the rest. Where I applied the Lime the Tobacco was of a much better growth, and after being cured the Tobacco had a much better body and was considerably much heavier than the rest. I am thoroughly convinced lime is what we need."

Mr. GEO. A. PAYNE, of Hunter's Lodge, Fluvanna county, Va., writes: "I used your Prepared Agricultural Lime on my Tobacco, and its results were far beyond my most sanguine expectations. My neighbors who saw it were astonished at its growth."

Proctor's Creek, Chesterfield county, Va., January 6th, 1876.

Mr. A. S. LEE: *Dear Sir*,—I used your Prepared Lime on part of my Tobacco crop—about five or six hundred pounds to the acre, broadcast—and it was much the best and heaviest portion of my crop. I seeded Wheat after the Tobacco, and although it was seeded late, the difference in the Wheat is already quite apparent.

R. A. WILLIS.

GRASSES.

Mr. J. W. SPIERS, of Reams Station, Dinwiddie county, Va., writes: "I used your Prepared Lime last Spring on Corn, and I made the best crop I ever made on high land. I had some left and applied it to my Wheat last fall, and it is now looking much better than usual on the same land."

COTTON, &c.

Stony Creek, January 24th, 1876.

Mr. SPIERS: *Dear Sir*,—In regard to the Prepared Lime I bought of you last spring, I have to say, we used it under Cotton and Peanuts, with satisfactory success. We used it in four different fields, side by side with a \$50 fertilizer, and in each case the Prepared Lime proved the best.

Most Respectfully Yours, WM. HOWE.

Hon. Mr. LEMMON, member of the Legislature from Sussex, at Stony Creek, says: "I used some of your Prepared Lime, and will say that it is the best fertilizer for the money that I ever used for Peanuts and Cotton. My tenants all used it and join in recommending it."

Stony Creek, January 28th, 1876.

Mr. ALFRED S. LEE: *Dear Sir*,—The Prepared Lime you sent to Stony Creek, by John Spiers, proved to be as good as any fertilizer that we used. I have seen it used by the side of a \$50 fertilizer, and think it is the best. I shall want five tons this year if I can get it.

Yours Truly, D. H. LADUS.

To be had of the following Agents:

James M. Towles, Raleigh, North Carolina; Ols, Parsley & Co., Wilmington, North Carolina; James Sloan's Sons, Greensboro, North Carolina; Rowlett, Tannor & Co., Petersburg, Va.; Warren, Paulett & Co., Farmville, Va.; Miller & Taylor, Lynchburg, Va.

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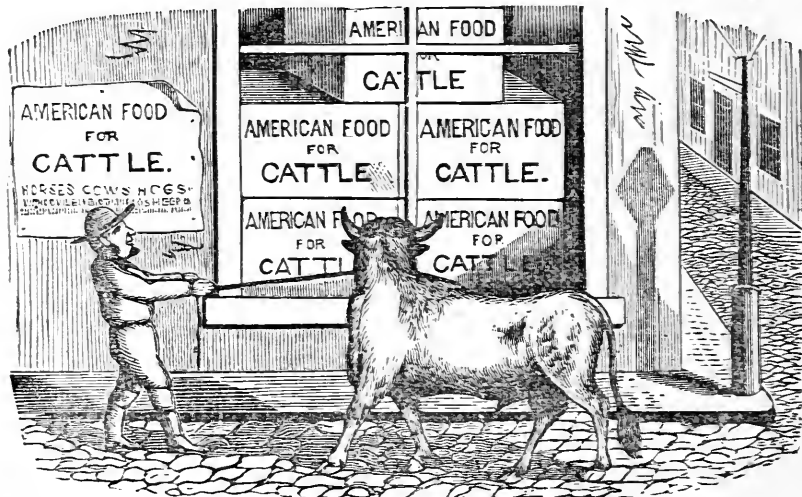
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PURE FINE GROUND BONE,
PURE BONE FLOUR,
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66° Oil Vitroil, German Potash Salts,
 Pure Chemicals for making Superphosphate at the lowest market price.

Call at **R. J BAKER & CO'S.**

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THE AMERICAN FOOD FOR CATTLE

Invaluable for Horses, Cows, Sheep, Pigs, Poultry and Dogs.

To breeders training cattle for the show-yard or for sale, it is essential. It produces flesh, hair, milk and wool. It is conducive to health, cleanliness and good condition. For the diseases of Poultry it is a specific.

ROBT. HUME, Manufacturer.

Jan—3t

Office and Depot: No. 18 Fifteenth street, Richmond, Va.

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Wilkinson & Withers,

MANUFACTURERS AND DEALERS IN

READY-MADE CLOTHING AND FURNISHING GOODS.

Keep a very large stock of Fine and Medium CLOTHING for City and Country wear.

Special attention to neat and substantial Clothing for our country friends, consisting of Suits PANTS, VESTS, and Long Sack and Frock OVERCOATS for horseback riding. "Patrons of Husbandry will take notice."

ALSO,

Large variety of FURNISHING GOODS, Merino and Flannel SHIRTS and DRAWERS, all grades; CANTON FLANNELS; best JEANS DRAWERS; Linen and Paper COLLARS, CUFFS, CRAVATS, assorted; HOSIERY, assorted; LINEN HANDKERCHIEFS; SILK HANDKERCHIEFS; KID GLOVES, all colors; CASTOR GLOVES; best BUCK GLOVES; HEAVY RIDING GLOVES, &c., &c.; RUBBER HATS, CAPS and OVERCOATS—in fact, everything necessary for a first-class Clothing and Furnishing House, all at the lowest CASH or C.O.D. PRICES.

Dress Shirts our Specialty.

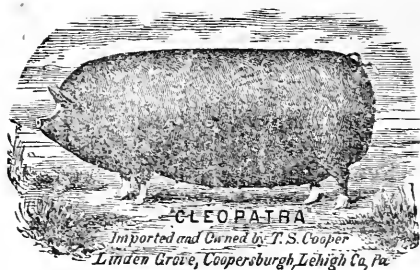
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The plan for home-made Shirts on the score of economy is no longer valid. We will furnish these Shirts, made of best Wamsutta cotton, 2100 Irish Linen Bosoms and Cuffs, 3-ply; all sizes, latest styles, open back and front, perfect fitting, only one quality, and guaranteed equal to the best \$3 Shirt in any market, for the low price of \$1.25 for men, \$1 for boys; selling 500 per week. The net saving by using this Shirt in Virginia one year will more than pay the interest on the public debt of the State. Away, then, with the talk of repudiation. Save the honor of the Old Dominion by repudiating high-priced Shirts. Sample Shirt sent by mail on the receipt of \$1.25 and 13 cents postage. This Shirt is a public blessing; so regarded by all who have tried them.

WILKINSON & WITHERS,
Clothiers and Furnishers,

No. 1007 Main Street, Richmond, Va.



“LINDEN GROVE.”

BERKSHIRES!

The SALLIE, SWEET SEVENTEEN, STUMPEY and SNIPED families, bred to perfection

At “LINDEN GROVE.”

Having lately received two importations of Berkshires, of first-class blood, among which were *Stewart's Gem*, *Stewart's Duchess* and *Stewart's Pride*, which won first prizes at Gloucestershire Agricultural Society, at Cirencester, Eng., and also prizes at other leading shows in England—there were also other prize-winners among the lot, such as the *1st Duke of St. Bridge*, winner of 1st prize at Croydon, England, and other noted shows, and pronounced by experienced judges to be the finest boar ever seen on exhibition—these, in addition to my last May's importation, give me one of the finest and most valuable herds of Berkshires in England or America—if not in the world—and I am prepared to furnish pigs of all ages, sired by *Plymouth* (the highest priced Berkshire boar ever sold in England or America), *Othello 1st* and *2nd Dukes of St. Bridge*, and by *Mark Antony*, out of my grand imported prize-winning sows, at reasonable prices.

Address,

T. S. COOPER,

“Linden Grove,”

Coopersburg, Lehigh county, Pa.

P. S.—My Prize sow Sallie XI. (Royal Beauty), winner of 1st prizes at the Royal Show, England, '74, 1st prize in her class at Ohio State Fair and Cleveland, and winning sweepstakes in a large and hotly contested ring at both Fairs in '74, has at present a litter of 8 pigs (7 boars and 1 sow) which are now 8 weeks old, and sired by imp. 2nd Duke of St. Bridge, which I will sell when three months old, boxed and delivered at our express office, with feed for journey, for \$50 per head. In her last litter she had 8 pigs; two of which—*Sambo XI.* and *Sallie XIV.*—were got up for the shows, and won first prizes at the leading shows in the West. The boar won 1st prize in his class at the following fairs: Ohio State Fair, Indiana State Fair, Cleveland and St. Louis; also sweepstakes at Cleveland and at the world's show at St. Louis, as best boar of any age or breed. The sow won sweepstakes at Cleveland, in a large class, as best sow of any age or breed; also 1st prize at other local shows.

My imported prize-winning sows, *Stewart's Gem* and *Duchess* have littered seven pigs each since their arrival, the largest, finest and best formed pigs I ever mind seeing. They were sired in England by Capt. Arthur Stewart's prize boar.

The young pigs will be for sale when three months old.—T. S. C.

G. W. ROYSTER.

J. B. LIGHTFOOT.

G. W. ROYSTER & CO.,
Commission Merchants,
RICHMOND, VIRGINIA.

Solicit Consignments of Tobacco, Grain, Flour and Produce Generally
Refer by Special Permission to J. W. Lockwood, Cashier National Bank of
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Grain Bags furnished on application. augly

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BLADE ALL STEEL.

Eye malleable iron. Every Hoe warranted
Best Hoe for general use in the market. The
Hoe for merchants to sell, because it gives
satisfaction.

Manufactured by

BALTIMORE STEEL HOE WORKS,
and **O. H. HICKS & CO.**

 For Sale by the trade generally.
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BUCKEYE MOWER AND REAPER,
Sweepstakes Thresher and Cleaner.
ECLIPSE AGRICULTURAL ENGINE,


Best, Cheapest and most Economical Engine in the market.

Circular Saw Mills; Mill Stones, Bolting Cloths, Eureka and other
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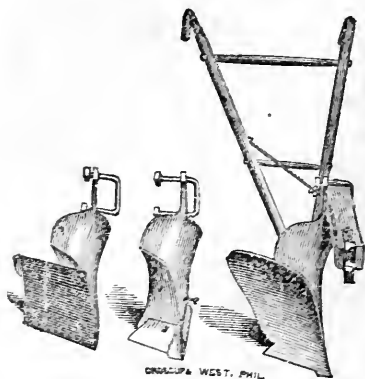
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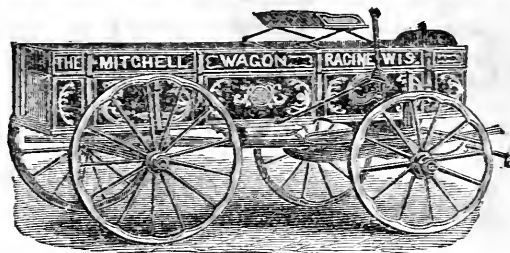
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SHOCKEE CHURCH, PITTSYLVANIA Co., Va., January 3, 1876.

MR. ANDREW COE, Baltimore, Md.,

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Yours truly,

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DEVOTED TO

Agriculture, Horticulture, and Rural Affairs.

L. R. DICKINSON..... Editor and Proprietor.

RICHMOND, VA.,

APRIL, 1876.

No. 4.

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Tillage and Pasturage are the two breasts of the State.—SULLY.

L. R. DICKINSON, EDITOR AND PROPRIETOR.

Vol. XXXVII. RICHMOND, VA., APRIL, 1876. No. 4.

THE NEGRO AND THE COMMON SCHOOL.

DR. L. R. DICKINSON, EDITOR PLANTER AND FARMER,—DEAR SIR: I have read the essays of "Civis" in your December, January and February numbers with profound interest, and with general approbation. Concurring fully with him in the opposition to the whole theory of primary education by the State, I also feel the force of his views concerning the negro and the common school. For some years I have had strong convictions of the falsehood and deadly tendencies of the Yankee theory of popular State education; and I confess that the influence which prevented my lifting up my voice against it was, simply, the belief that so puny a voice could effect nothing against the prevalent "craze" which has infected the country on this subject. You may conceive, therefore, the satisfaction with which I saw "Civis" take up the cause of truth in the columns of the *Religious Herald*, and subsequently in the *Planter and Farmer*, and my admiration for his moral courage, eloquence and invincible logic. With such champions, the cause of truth is not so hopeless as I feared. With equal satisfaction I have seen the Rev. Dr. John Miller, long an honored citizen of Virginia, and a gallant soldier in her army, arguing the same truth in the *Tribune*, with even more than his wonted terseness, boldness and condensed logic. There is another sign that the cause of truth is not wholly lost: this is the new zeal of the self-constituted protectors of this Yankee heresy in Virginia, in circulating arguments and pleas for their error. These documents have had no other effect on my mind than to awaken the wish that, if we must, perforce, have this false system imposed on us by our conquerors, any executive agency, created to administer the ill-starred plan, might at least have the modesty to stick to its appointed business, and not waste the money of the people in the attempt to manufacture among the people an erroneous public opinion. It is enough to be taxed heavily, against my judgment, for a quix-

otic project, which can never do me or any one else any good. I am unjustly forced to surrender my money; but I beg leave to preserve the privilege of doing my own thinking. At least, I do not propose docilely to receive my opinions on it from those, who, in advocating the system, are also advocating their own official emoluments.

While speaking of the general subject, I am tempted to notice a recent argument which is flaunted before us: this is, the rapidly increasing popularity, which, it is claimed, the plan is winning at the South. The reply is, that if this popularity is growing, it exactly confirms the argument of "*Civis*," that the system is agrarian, corrupting, subsidizing the people and debauching their independence. Imperial donatives to the Roman populace became very popular; true, but they poisoned the last good element of Roman character, and helped to complete the putrescence of the empire. I fear it is only too true, that this cunning cheat of Yankee state-craft is *alluring* the poor, harassed Southern parent; and that he is yielding to the bait, which promises deceitfully to relieve him of his parental responsibility. A bribe, alas, may become easily popular in decadent times.

But, you asked for my opinion of this fearful question of the negro in our common schools. It is not necessary for me to repeat the points so strongly put by "*Civis*." To one of them only, I would add my voice: the *unrighteousness* of expending vast sums, wrung by a grinding taxation from our oppressed people, upon a pretended education of freed slaves; when the State can neither pay its debts, nor attend to its own legitimate interests. Law and common honesty both endorse the maxim: "A man must be just before he is generous." The action of the State, in wasting this money thus, which is due to her creditors, is as inexcusable as it is fantastical. I do know that not a few of our white brethren, before the war, independent and intelligent, are now prevented from educating their own children, because they are compelled to keep them in the corn-field, laboring from year's end to year's end, to raise these taxes to give a pretended education to the brats of the black paupers, who are loafing around their plantations, stealing a part of the scanty crops and stock their poor, struggling boys are able to raise. Not seldom has this pitiful sight made my blood boil with indignation, and then made my heart bleed with the thought: "How mournfully complete is that subjugation, which has made men, who were once Virginians, submit tamely to this burning wrong?" "The offence is rank, and smells to Heaven." Thank God, that I have only to pay, and have nothing to do with the imposition, collection and disbursement of this shameful exaction:

The argument by which they endeavor to reconcile us to it is always this: "Negro suffrage is a fixed fact; Virginians cannot help it; and if the negro is to share in governing the State, our interest is to qualify him for doing so, by educating him." To this argument many well-meaning men reluctantly yield. My first remark upon it is: That I am not at all clear, that candor, or truth, or self-respect

will allow any Virginian thus to accept the impossible *onus*, which conquest seeks to impose on us. Radicalism thrusts upon us this fatal innovation of negro suffrage; and then requires of us a promise that *we will undertake* to make it work safely and beneficently. I beg leave to demur from making any such promise. I do not mean to divide with the conqueror the *onus* of his ruthless and murderous crime against liberty and civilization. He has committed it; let him bear its responsibility. If it is not undone, it will destroy both American liberty and civilization. If I could prevent that result, I would; and if I believed that I could, I would promise to try. But, knowing that I cannot prevent that result, and *that no human power can*, unless the crime be retracted, I do not mean to make a deceitful promise, or to divide the damning responsibility of the crime with its perpetrators. If I saw a ruthless quack proposing to divide a man's carotid artery, in a mad surgical experiment, and he should ask me to promise to tie it up, so as to remedy the murder he was committing, I should tell him that, however anxious to save the life of his victim, *I was not able* to do it by tying up a carotid artery, and could not promise. If he persevered in murdering the man, he must bear the guilt alone.

For, second: the pretended education which Virginia is now giving, at so heavy a cost, to the negroes, is, as a remedy for negro suffrage, utterly deceptive, farcical and dishonest. The tenor of the argument concedes, what every man, not a fool, knows to be true: that the negroes, as a body, are now glaringly unfit for the privilege of voting. What makes them unfit? Such things as these: The inexorable barrier of alien race, color, and natural character, between them and that other race which constitutes the bulk of Americans: a dense ignorance of the rights and duties of citizenship: an almost universal lack of that share in the *property* of the country, which alone can give responsibility, patriotic interest and independence to the voter: a general moral grade so deplorably low as to permit their being driven or bought like a herd of sheep by the demagogue: a parasitical servility and dependency of nature, which characterizes the race everywhere, and in all ages: an almost total lack of real persevering aspirations: and last, an obstinate set of false traditions, which bind him as a mere serf to a party, which is the born enemy of every righteous interest of our State. Let the reader look at that list of ailments. Not an item can be disputed. Now, our political quacks propose to cure them, and that in such time as will save the Commonwealth before the infection becomes mortal. And how? By such an infusion of (not education, but) a *modicum* of the arts of reading, writing, and cyphering; which are at best uncertain means, only, for educating; and that, such a *modicum* as the kind of teachers and schools Virginia can now get, will infuse through the wool of such heads. Does any sane man really believe this remedy will do that vast work? Nay, verily, "Leviathan is not so tamed." Or, to return to the former trope, we may use the exclamation of John Rándolph against a weak book,

which was proposed to him, as an antidote for the malignant ability of Bolingbroke's infidelity. "Vernice treacle, and syrup, against *Arsenic!*" Whether this remedy will save us, may be settled by an argument of fact, unanswerable to every patriotic Virginian. The Yankees have had this "nostrum" of free school education, in full force, for two generations. Has it reared up among them, out of white people, a popular mass fit to enjoy universal suffrage? Did not this very system rear up that very generation, which, in its blind ignorance and brutal passion, has recently wrecked the institutions of America; has filled our country with destitution, woe and murder; and, with a stupid blindness, only equalled by its wickedness, has stripped its own Commonwealths, in order to wreak its mad spite on ours, of the whole safeguards for their own freedom and peace? *These are the fruits of* this Yankee system of State primary education, as working on a white race. Will it work better on a black race? I have not yet learned enough of that type of "intelligence" which this system seems to foster, to repudiate my Saviour's infallible maxim, "the tree is known by its fruits." The Yankee has bragged so much of his "intelligence," of his floods of books and oceans of newspapers, that some Southern people seem "dazed" by the clamor. Well; there may be "fussiness," there may be plenty of self-conceit, and flippancy; but I stand simply and firmly by this impregnable fact: This system has not given the Yankee true wisdom enough to prevent his destroying the country and himself. What mere self-delusion is it, to dream that it will give this quality to the negro?

But, third: There are causes peculiar to the negro and the South, which leave us no hope that this so-called system of free schools will produce even as much fruit as in New England or New York. One is the fact which "Civis" has so boldly stated: The black race is an alien one on our soil; and nothing except his amalgamation with ours, or his subordination to ours, can prevent the rise of that instinctive antipathy of race, which, history shows, always arises between opposite races in proximity. Another cause is the natural indolence of the negro character, which finds precisely its desired pretext, in this pretended work of going to school. Still another is the universal disposition of the young negro to construe his "liberty" as meaning precisely, privilege of idleness. It was easy to see that the free school must needs produce the very result which it is usually producing, under such exceptional circumstances; not education, but discontent with, and unfitness for, the free negro's inevitable sphere and destiny—if he is to have any good destiny—manual labor. With such teachers, such parents as the negro parents, and such material, it was hopeless to expect any really beneficial knowledge of the literary arts to be diffused among this great mass of black children. The only thing the most of them really learn is a fatal confirmation in the notion that "freedom" means living without work, and a great enhancement of the determination to grasp that privilege. The one commanding and imperative necessity

of the young negro at the end of the war, in the eyes of any sober philanthropist, was this: that he should be promptly made to learn some way to earn an honest living. The interest which the Commonwealth had in his quickly learning this vital lesson, was perilously urgent, as I shall show. Instead, then, of giving any negro over five years old a pretext of any sort for evading his righteous and beneficent lot of manual labor, we should have bent every energy of statesmanship and government to the task of somehow keeping the grown negroes at their work, and making sure that the young ones were taught to work. To this end nearly all the practical talent and energy should have been bent. The police administration should have been so omnipotent and energetic as absolutely to cut off the possibility of a negro family's subsisting by plunder—vagrancy should have been rendered impossible by stringent laws, apprenticing the loafer to an industrious citizen. The tolerance of idleness in children approaching adult age, by their parents, should have been made a misdemeanor, justifying the intervention of the magistrate. Such a system of *stimuli*, if made effective, must have been harsher than domestic slavery. I reply, yes: but in imposing it, we should be but imitating our conquerors, who ordained that the wise, kindly, benevolent, yet efficient system of the South should give place to their more pretentious but oppressive system. We are fully justified by the rights of self preservation, to imitate their severity. Here is a parable which expresses accurately the folly Virginia has committed. She saw a neighbor of her's, named, we will say, Smith, who was very rich, and who also had a large family of healthy children. Smith is using a part of his abundance, in sending all of his children to school. Now Virginia is not rich, but desperately poor; and it will be "touch and go" if some of her children do not actually starve before the year is out. Moreover, Virginia's children are in so feverish, unhealthy a state, that confinement with books is likely to have no effect, except brain-fever. But the old lady sees Smith's gang passing her door to school every day, with envious eyes. She feels that somehow "book-larnin" is a social distinction. She hears Smith's children "chaffing" hers about their inferiority of privilege, and she can stand it no longer. So she completes her own bankruptcy to buy an outfit of "store clothes," and school-books, and sends all her children. Luckless urchins! what they needed was wholesome food and medicine, not books and confinement. The result of this blind disregard of times and differences, and abilities, is, that about the time famine and the sheriff are both knocking at the old lady's door, her children are sent back to her, in raging delirium from brain fever, either helpless, or rending each other in their phrensy.

Does any one demur, that this picture is extravagant? Then, he has not begun to see the fearful peril of our situation. Indeed, I feel sure that bad as is the present state of Virginia (in consequence of the abolition measure forced upon us) far the worst is yet to come. What are we to do with this young generation of negroes now grow-

ing up? Have men looked that question fairly in the face? It makes me shudder—and the free school is one of the most tragical features in the coming drama. Let these facts be considered. *This coming generation will be a numerous one.* Men, like “Civis,” are evidently nursing the secret hope that it will not; and to my mind it is one of the most pitiful evidences of the atrocity of the wrong perpetrated on Virginia by her conquerors, that good, patriotic, philanthropic, christian men here see the evil fruits of that crime looming up so fearfully, as actually to find a grain of private consolation in the *hope!* that a race of human beings among us are advancing to the miseries of extermination. I do not find fault with the hope; it is natural—I shall naturally and justifiably hope that my wilful destroyer may perish before he murders me—I condemn the oppression which has left good and wise men no solace except in that hope. They scan the bills of mortality in Southern cities with a sigh of relief. Doubtless city-life is a devouring gulf for the poor freedman, but Virginia is a rural State; and in the country, the lazy freedman multiplies, unstinted by his poverty. The climate is genial, the winter is short, the persimmons and blackberries span the larger part of the year; the “old hares” are prolific; the old freedmen, once slaves, still do about half work, and produce some provisions; and above all, the process of eating up the white people by petty pilferings is still far from completed. So, between these various resources, country negroes manage to sustain those low conditions of existence, which enable so low a race to multiply; and they multiply on, as yet, very much as in old times. This perilous incoming generation will be a numerous one.

The next fact is, that *the negro is a creature of habit.* Those whose characters were formed in slavery still carry with them two habits gained there; one, that of work (though gradually relaxing); the other, that of loyalty and affectionate respect for “their white folks.” The new generation cherishes neither. I know of only one or two, of either sex, who are engaged in any self-supporting labor—they live on their parents, or on pilfering. Does one see any of them apprenticed to any useful trade, or in the regular employment of any business man? I have with me the testimony of the planters; they tell me that, in hiring hands, they always seek middle-aged ones, who were trained in slavery; the younger are not worth hiring, if they ever offer. I have with me the testimony of the middle-aged freedmen, the fathers and mothers themselves. Their complaint is, that the “young ones have no idea of work—they do not know what real work is—what is to become of them, the Lord only knows.” All who know the negro character are aware also of that infirmity of purpose which, almost universally renders them inefficient parents. They are either too weak or indulgent, or they are brutally and capriciously severe. Hence, the usual law of negro families is, a low state of parental and filial qualities, dissatisfied parents, and insubordinate children—it was always so upon the plantations, except as the master or overseer guided and reinforced the

father's rule; it is flagrantly so now. The ugliest feature of this coming day is, that the young negroes are evidently growing up with a restive, surly, insolent spirit towards the whites, in place of that close family affection, feudal loyalty, and humble pride in their superiors, which once united masters and servants. How can it be otherwise? The family tie is gone forever—the "carpet bagger" has played his accursed game upon the negro's passions. Suffrage and the free school awaken in the young negro foolish and impossible aspirations, which are fated to disappointment, and whose disappointment he will assuredly lay to the door of his white rivals, lately his kindly protectors. One needs only to walk by the way, to see this change of temper. The ex-slave greets his former "white folks" with a smile of genuine pleasure, and with all the deference of old times. But his son and daughter pass without speech, or with a surly nod, and assert their independence by shouldering white children from the sidewalk. What, meantime, is the temper to which these white young people are growing up? They also are strangers to the family feeling; they know nothing of the kindly responsibility and patronage begotten by the former dependence of the servants; to them these insolent young blacks are simply strangers and aliens, repulsive and abhorred. The sons of the heroes who fell at Manassas and Gettysburg are not likely to imbibe from widowed mothers traditions which will make them very tolerant of "negro impudence."

The State of New Jersey has emancipated her slaves recently enough, for men now living to testify to the effects of the measure. The account that I have uniformly heard from her citizens is this: That the negroes reared in slavery continued to be useful, but that when this generation had passed away, business men ceased, as a general rule, to employ negroes in any permanent contract of labor. They were found too fickle, uncertain and indolent. Ask a New Jersey farmer to employ a negro for his permanent farm help, and he would answer with a smile at your absurdity. After a time negroes almost ceased to be seen in rural districts; they drifted into taverns, barbers' shops and other places where "jobs" could be picked up. What right have we to flatter ourselves with a different result in Virginia?

Now an industrious community can endure a certain percentage of idlers, but if it be increased too much, they poison the community. The body politic is, in this, like the natural body, a certain amount of poison in its circulation can be endured, and eliminated by the emunctory organs, but if the poison is in larger quantity, the man dies. When the generation of freed-negroes, which works feebly, has passed away, can the white people of Southside Virginia endure the pilfering of a body of negroes more numerous than themselves, who will work not at all? And when the white people are at last driven to the end of all patience by intolerable annoyances, and the blacks are determined to live and not to work, collision cannot but ensue. What shall we do with that generation of

negroes "educated" to be above work? I see no other prospect, humanly speaking, except the beginning of a war of races, which will bring back the provost marshal, and the government of the bayonet, and will, indeed, make us eager to welcome them.

But even if this danger is evaded, I object to this whole scheme of State education for negroes, because, if successful, it can only result in wrong. In every civilized country, there must be a laboring class. The idea that this universal "education," so called, is to elevate that laboring class into a reading body, and still leave them laborers, is a vain vision. The people who are addicted to manual labor are never going to be students, as a body. It is not so in boasted Prussia, nor in boasting New England. Laborers, if taught the arts of letters in their youth, disuse them in their toiling manhood. The brain which is taxed to supply the nervous energy for a day of manual labor, will have none left for literary pursuits. If our civilization is to continue, there must be, at the bottom of the social fabric, a class who must work and not read. Now, grant that the free school does all that its wildest boasts can claim; that it elevates the negroes out of this grade. Then the only result will be, that white people must descend into it, and occupy it. Where then is the gain? I, for one, say plainly, that I belong to the white race, and that if I must choose between the two results, my philanthropy leads me to desire the prosperity of my own people, in preference to that of an alien race. I do not see any humanity in taking the negro out of the place for which nature has fitted him, at the cost of thrusting my own kindred down into it. No amelioration whatever is effected in the country taken as a whole; but an unnatural crime is committed to gratify a quixotic and unthinking crotchet.

Again: Let us grant that free schools effect all that is claimed, for the elevation of the negro; that he is actually fitted for all the dignities of the commonwealth, and for social equality. Then, will he not demand it? Of course. Here then, is my concluding *dilemma*. If these negro schools are to fail, they should be abolished without further waste. If they are to succeed, they only prepare the way for that abhorred fate, *amalgamation*. If the State School Board are working for anything, they are working for this; here is the goal of their plans. The most solemn and urgent duty now incumbent on the rulers of Virginia, is to devise measures to prevent the gradual but sure approach of this final disaster. The satanic artificers of our subjugation well knew the work which they designed to perpetrate: it is so to mingle that blood which flowed in the veins of our Washingtons, Lees, and Jacksons, and which consecrated the battle fields of the Confederacy, with this sordid, alien taint, that the bastard stream shall never again throb with independence enough to make a tyrant tremble. These men were taught by the instincts of their envy and malignity, but too infallibly, how the accursed work was to be done. They knew that political equality would prepare the way for social equality, and that, again,

for amalgamation. It is only our pride which hides the danger from our eyes. A friend from Virginia was conversing, in London, with an old English navy surgeon, who was intimately acquainted with the British West-India Islands. He assured the Virginian that the "reconstruction acts" tended directly to amalgamation, and would surely result in it if persevered in. "Never," exclaimed my Virginia friend, "In our case, our people's pride of race will effectually protect them from that last infamy." "Had ever any people," replied the ex-surgeon, "more pride of race than the English? Yet they are amalgamating in Jamaica. We have the teachings of forty years' experience in this matter; when your emancipation has become, like ours, forty years old, you will see." The Virginian was silenced. Even now, after ten years of the misery and shame of subjugation, one has only to open his eyes to see the crumbling away of the social barriers between the two races. The nearest and heaviest share of this curse of mixed blood will, of course, fall upon the conquered States themselves; but the revengeful mind will have the grim satisfaction of seeing the conquering States reap their sure and fearful retribution from the same cause. Eleven populous States, tainted with this poison of hybrid and corrupted blood, will be enough to complete the destruction of the white States to which they will be chained. The Yankee empire will then find itself, like a strong man with a cankerous limb, perishing by inches, in chronic and hideous agonies. The member which spreads its poison through the whole body can neither be healed nor amputated, all will putrefy together.

Is there any *remedy*? This is the question which will be urged, and those who think with me are listened to with disfavor, chiefly because people do not like to be reminded of a shameful and miserable future, which they suppose to be unavoidable; they prefer to shut their eyes and enjoy the remnants of pleasures which are left them, without disturbance. We shall be asked: Why speak of these things, unless there can be shown a remedy? There might be a remedy, if the people and their leaders were single-minded and honest in their action as citizens. The key-note of that remedy is in "impartial suffrage." In endeavoring to remedy the dangers of the commonwealth, we must remember that we are a conquered people, and have to obey our masters. Otherwise our straight road back to safety would be at once to repeal negro-suffrage. But our masters will not hear of that. What is called "impartial suffrage" is, however, permitted by their new Constitution. We should at once avail ourselves of that permission, and without attempting any discrimination on grounds of "race, color, or previous condition of bondage," establish qualifications both of property and intelligence for the privilege of voting. This would exclude the great multitude of negroes, and also a great many white men. And this last would of itself be no little gain, for many more white men have the privilege than use it for the good of the State. Again, the very misfortunes of the time give us this advantage now, for drawing back

from the ultra-radicalism of our previous legislation : that the mass of white men are now so impressed with the dishonor and mischiefs of negro suffrage, the majority of those white voters having no property, would, even joyfully, surrender their privilege, tarnished and worthless as it is, if thereby the negro could be excluded. This constitutes our opportunity. To this saving reform there is just one real obstacle, and that is, *the timid self-interest of the office-seeking class*. I take it for granted that every sensible man in Virginia thinks in his heart that negro suffrage is a deplorable mistake. But many wish to be elected or appointed to office. These begin to calculate, under the promptings of timid selfishness : "While I should be very glad to see this wholesome reform, it will not be prudent for *me* to advocate it; because, should a movement for it, advocated by me, perchance fail, then all the classes whom that movement proposed to disfranchise of this useless and hurtful privilege, will be offended with me. So, when self-love desires to be elected to some place of emolument, they will remember me and vote against me. Hence, I cannot move in that reform, however desirable." *This is the real difficulty*, and the only real difficulty, in the way of this blessed step towards salvation. If all the men who now cherish aspirations for office, could only be made to act disinterestedly—to forget self, to resolve to do the right and wise thing for the Commonwealth, whether they were ever voted for again or not, the whole thing would be easy. There are a plenty of intelligent young men in Virginia, now without property, who would joyfully join the freeholders in voting to disfranchise themselves for this great end, to make a commanding majority. So that the question, whether the State can be saved from this perdition, turns practically on this other question (as indeed the fate of Commonwealths always practically does,) whether her people can for once act with a real honest disinterestedness. If the people and their leaders are capable of that, they can save themselves; if not capable, nothing can save them. And perhaps the verdict of posterity will be, that they were unworthy of being saved. It will be well for all to look this view of the matter fully in the face. Especially is it necessary for the farmers to see precisely where the deliverance and the obstacle to it lie.

The other branch of our remedy should be to reform our school system, both for blacks and whites, back towards the system of our fathers in Virginia, just as fast as possible. I mean the system which prevailed in Virginia up to 1860. I know that all the self-constituted, pretended advocates of free education disparage that system as miserably partial and inefficient. But our fathers knew what they were about, much better than was supposed. "Young people *think* old people are fools, but old people *know* that young ones are." Did that old system produce perfect results? No. No system in imperfect human hands ever produces perfect results. Did it teach every adult in the State to read and write? No. *But neither will the new one.* That is, the new system will no more be able to

overcome the inexorable law, that the mass of those addicted to manual labor will not and cannot addict themselves to the literary arts, than our fathers were. And after all the fuss and boast, and iniquitous expense, "the upshot" will be that *there will still be just as many adults in the State, who practically will not read, and who will forget how, as before.* And there will be far fewer to use their art of reading to any good purpose. How often will men stubbornly forget that *the art of reading is not education*, but only a very uncertain *means of education.* With that class for which the free school especially provides, it is *usually a worthless means.* The feasible and useful education for that class is the development of faculties which takes place in learning how to make an honest living. My prediction is already verified in Massachusetts, the very home of the State-school humbug. *The annual reports of their own school superintendents confess it.* A large part of the rural laboring population still do not read, have forgotten how to read, do not care to know, and care not a stiver whether their children know. (Here, by the way, is the cause of this new *furor* for "compulsory education"). Tried by this sober and truthful standard, I assert that the comparative fruits of our old system fully justified its excellence. Again I demand that the "tree shall be known by its fruits." That was the system which reared the Virginians of 1861: that glorious, enlightened generation of men, which comprehended so clearly the vital importance of the great doctrine of State sovereignty, while the Yankee hordes, reared up under this be-praised system of free schools, ignorantly trampled on it with beastly stupidity and violence: that glorious generation which contended for the right so firmly, so temperately, as to win the admiration of the world: that generation which, when moderation availed no longer, formed the heroic armies which followed Jackson and Lee to the last. Yes, it was the old Virginia system that reared the yeomanry which filled those immortal ranks with such a body of privates—so virtuous, so enduring, so brave, so intelligent, as no other generals ever commanded. Yes, "let the tree be known by its fruits." The tree that bore "the rank and file" of the Stonewall Brigade was good enough for me. It may be pruned, it may be watered and tilled, and thus it may be improved. Our true wisdom will be to plant it again.

This old system evinced its wisdom by avoiding the pagan, Spartan theory, which makes the State the parent. It left the parent supreme in his God-given sphere, as the responsible party for providing and directing the education of his own offspring. This old plan, instead of usurping, encouraged and assisted, where assistance was needed. It was wise again, in that it avoided creating salaried offices to eat up the people's money, and yet do no actual teaching. It was supremely wise, in that it cut that Gordian knot, "Religion in the State school," which now baffles British and Yankee wit. It set that insuperable difficulty clear on one side, by leaving the school as the creature of the parents, and not of the State. It was

wise in its exceeding economy, a trait so essential to the State now.

I would have our rulers, then, avail themselves of another circumstance growing out of our calamities, to disarm the overweening zeal of the State school men. We can truthfully say to them: "Your system, whether best or not, is simply impracticable for Virginia. You see that she has stretched taxation to the verge of confiscation; and yet her debt cannot be paid and that costly system carried on." Let two separate "Literary funds," then, be created, one for whites and one for blacks, each separate, and each replenished from the taxation of its own class. Let "each tub stand upon its own bottom." Instead of the State undertaking to be a universal creator and sustainer of schools, let it invite parents to create, sustain, and govern their own schools under the assistance and guidance of an inexpensive and (mainly) unsalaried Board, and then render such help to those parents who are unable to help themselves, as the very limited school tax will permit. And let *the existence of some aspiration* in parents or children be the uniform condition of the aid; for without this condition it is infallibly thrown away. "One man may take a horse to water, but a hundred can't make him drink."

R. L. DABNEY.

Union Theological Seminary, Va., Feb. 21, 1876.

[For the Southern Planter and Farmer.]

IN MEMORY OF A VIRGINIA YOEMAN WHOSE LIFE WAS A PATTERN TO US ALL.

We present to our friends the following sketch, furnished us by an esteemed correspondent, of the career of that most excellent man and successful farmer, Mr. JOHN S. NICHOLAS, Sr., of Buckingham. As advanced in years as he was when the war reached its issue, he did not fold his hands and mourn over what *had been*; but, to the end of his days, observed a diligence in business, and a cheerfulness of temper, that made him, in these times of gloom, a pattern for those still favored by youth, and whose energies needed *only the will* to succeed. Before the war, when comfort was general, the affairs of most men were so arranged as to enable their families, without much other suffering than the loss of one dear to their hearts, to get along. Now the case is entirely different; if the head of the family does not struggle to make this provision, the almshouse, or the charity of relatives, *is the only hope of his family*, without God has vouchsafed him sturdy sons on whom his wife and daughters may lean for support. Mr. NICHOLAS, in that he showed the fruits of a manhood which is the portion of us all, and in a way to indicate its chief characteristic, *independence*, did not live in vain.—ED.

This gentleman, whose lamented death occurred the 5th of November, 1875, was born at Seven Islands, in Buckingham county, December 11th, 1803.

His energy, business sagacity, purity of character and public spirit, made him an honored type of the Virginia gentleman and farmer of the generation, now so rapidly passing away, and an example to the young who are pressing forward as their successors.

Coming upon the stage of active life at a very early age, as the aid and support of a widowed mother, left in possession of an estate heavily encumbered with debt, he devoted his time and best energies to her assistance, and as the years passed on he succeeded in removing every encumbrance and in making large additions to the patrimonial estate.

In addition to the occupation of the agriculturist, his active spirit sought and found employment in other directions. He was for several years (1847-8) successfully engaged in working one of the slate quarries of Buckingham. His public spirit led him, also, to contribute most valuable assistance to the improvement of the navigation of Slate river, of which work he had charge for several years.

As a farmer, he exhibited all those qualities which lead to and deserve success in the profession. He was remarkable for foresight and breadth of view in his plans—in their execution he exhibited an industry, perseverance and watchful attention to details, which never flagged. *He loved his work and was proud of it.* Throughout a long life he was remarkable for his decision and independence of character; for the punctuality with which he met every engagement, and his careful avoidance of debt.

While eminently a practical man, he neglected no aid which reading and the science of agriculture could afford him. His information derived from his own fine powers of observation, and from large and well digested reading, was extensive, and his conversation most instructive. In the latter years of his life he contributed several valuable articles to the *Southern Planter and Farmer*, containing the rich fruits of his sound judgment and long experience.

At the close of the civil war, though an old man, he faced the situation with unflinching resolution, and set to work to repair his heavy losses with a cheerfulness which never wavered, and which was an inspiration to his friends. His efforts were directed as well to permanent improvement as to immediate returns, as witnessed by the present condition of his valuable estate.

His pastor, who had known his worth for thirty years, paid to his memory this tribute in the *Central Presbyterian*:

"The deceased was one of our most aged citizens, and the oldest member and Ruling Elder of the Presbyterian church in the neighborhood, having passed three-score years and ten. He was very useful in the various relations which he sustained to others; as a husband, devoted and kind; as a father, loving and tender; as a neighbor, friendly; as a member of society, valuable; as a private member of the church, liberal; and, as a ruler in the House of God, wise. As such he was highly respected and greatly beloved by those who knew him. Few men, perhaps, ever possessed, during a long life, more of the respect and affection of his fellow-men. His death, at the present time, is a loss irreparable to us; but our loss is his gain. He departed somewhat unexpectedly, but gently, without even a struggle, and has entered into that perfect rest which remaineth for the people of God. While, therefore, we mourn for him, we do not sorrow as those without hope. 'Blessed are the dead who die in the Lord.' 'Mark the perfect man and behold the upright, for the end of that man is peace.' 'Let me die the death of the righteous, and let my last end be like his.'"

[For the Southern Planter and Farmer.]

THE PHILOSOPHY OF FRYING.

I wrote you that I was rendering a little article from Willat Savarin's, "*Gastronomy and Gastronomers*," when I found that "B. F. J." had anticipated me in the *Country Gentleman* of August 6th, 1874, by translating part of the same chapter. This had been overlooked by me at the time; as soon as I discovered it, the paper was laid aside; but, as you still desire it, I send an abstract of the article with a few comments.

"The philosophy of frying!" An important, if *homely* branch of domestic economy; let it not be despised as a subject too trivial to be noticed. In the hey-day of phlebotomy it was said that "the lancet killed more than the sword." The frying-pan, in unskilled hands, is a more deadly implement than the lancet—and the millions that use it, from Maine to California, are almost all unskilful.

"Frying," as commonly practised, is in this wise: The food, to be cooked, is put with a modicum of lard, or fat meat, in a pan barely warmed, or at most slightly heated, then placed on the fire and held there while the viands are turned about until "done," when they are served up, reeking with grease; and might safely be warranted to give dyspepsia to any but the genuine corn-field negroes of blue blood.

The true theory of frying depends upon this principle: that while, as is well known, water cannot be heated above 212°F., oil or animal fat can easily be carried to about 800°, and, in fact, should be for the purpose indicated. The frying should really be a boiling in oil or fat, which should be deep enough to cover the articles; having first raised it to the proper temperature, which may be tested by immersing a crumb of bread, (if the bread is almost instantly turned to a rich, brown hue, the heat is sufficient) then the pieces are plunged into the bath of boiling fat, and removed as soon as done, which will be in a time incredibly short to those who have not tested this method of cookery, and the effect is magical, nothing can be more delicate than meat cooked in this way.

If everything shall have been artistically done, not a drop of grease will be found adhering to the beautifully browned surface of fish, flesh or fowl. The effect of the intense heat is instantly to shrivel, and as it were hermetically seal the integument, keeping in all the juices and preserving all the flavor and delicacy in a way that, perhaps, no other process can equal.

Those who have travelled Westward (by the White Sulphur Springs) in the good old days when railroads, those vile centralizers, had not broken up all the good inns of the country, will remember that celebrated hostelry, "Callaghan's;" everything there was good, but it had a specialty for fried chicken, a celebrity almost as extensive as that of the "London Tavern" for turtle soup, or, the "Rocher de Cancale" for oysters; it was the very poetry of fried chicken—to have eaten it was something to be remembered as an era in one's life. It was said that a distinguished lady of Baltimore, Madame B., once stopped there a day or two for the purpose of finding out the secret process by which such superb results were achieved. Whether the artist (cooks are notoriously jealous!) was caajoled into allowing her thunder to be stolen, I cannot say, but it was afterwards told to me, and was actually as I have described.

There was another tavern in Lower Virginia, more humble, because in a less frequented route, where the fried chicken was, as at Callaghan's, all that it ought to be. The landlady disclosed the secret to a gentleman who told the writer—she too had been led by genius to artistic excellence.

Science and high art must corroborate each other—frequently art, guided by intuition, arrives at its ends long before scientific research has made plain the way—so in the instances I have mentioned. But, now, he who runs may read, and there is no more excuse for bad frying, except the overweening love of darkey cooks for “fat.” It is so hard for the most honest of them to resist its seductive influences that they will be apt to appropriate so much as not to leave enough for the “hot bath” I have described. The mistress will have to superintend the operation.

I close with the exhortation frequently given by my author: “Follow my directions, and you shall see marvels.”

Cumberland county, Va.

RANDOLPH HARRISON.

NOTE BY THE EDITOR.—Col. Harrison, in the note to us accompanying the above, says: “I read it to my wife, and believe she was rather disgusted; not that she disagrees with anything in it, but she thinks it is *trifling*.” Now, as much as we value the judgment of so excellent a lady, we are glad, for once, to see a rebellious husband. *The men are all lambs*—especially when they become Benedicks. It has often occurred to us that, as true to nature as Shakspeare was in most things, Petruchio was certainly one of his “pleasant fictions.” The taking of a fenced city was a trifling exploit compared with the conquest of a woman of Katharine’s mettle. To be serious though, a man who has a good wife, (and all men have,) and doesn’t love to be her slave, is fit for treason, stratagem, and spoils, and ought to die unwept, unhonored, and unsung.

And now to the kitchen. While Lady Mary Wortley Montague might drive poor little Pope mad with her beauty and sparkle, and be the acknowledged central star among the handsome women of her time, it is recorded of her that she was unexcelled as a housekeeper. She understood thoroughly what Peter Pindar observed: that “the shortest way to a man’s heart was down his throat,” and so Mr. Montague and his friends found no occasion for a smiling lie when they saw the board she had spread for their enjoyment. And yet the man may be guilty of this respect for his palate, and still not deserve Carlyle’s denunciation: “You wretched mortal! stumbling about in a God’s temple, and thinking it a brutal cookery-shop!” It is quite certain that a hungry man is not an accountable being; and if his hunger is appeased, and that with cheerful surroundings, whether sauces or otherwise, he has enjoyed the provision the Creator has made for him, his heart rendered thankful, and he has done an act consistent with the most perfect propriety; else, what would become of our clerical brethren who lay so great a store by the “side bone.” We think it was Brother NOLLEY, who once remarked that Nature had provided this delicious morsel only for laborers in the celestial vineyard like himself. If we all deserved it as much as he did we might congratulate ourselves. In few words, however the Platonic folks may think and act, as for ourselves, save us from the Boston regimen of “cold bread and the Infinite.”

Female education, in these days, we fear, is much after the Blimber pattern. Little Paul Dombey did not strain his arms more to carry the pile of books Miss Cornelia prescribed for him, than many young girls we now meet, in our daily

walks, on their way to school. When they graduate, we are sometimes at a loss to know what has become of the contents of all of those books. It is a good thing to be able to say properly "*au fait*," "*en regle*," "*comme il faut*," &c.; to tell the exact degree of heat Mr. Huggins found the earth to receive from Regulus; to distinguish between the music of Beethoven and Offenbach; to know that Byron and Shelly are "divine;" but it is quite as good a thing to understand that time may make one a man's wife, and the mother of children, and that no woman is worthy the name of wife who cannot dispense her husband's means with discretion, and will not prove *his helper*, in laying up for old age and those whom God has given to their keeping. And this matter of providing for the table is no small part of the business; for nothing can be made more extravagant. The girls, we are thankful, do not lack for aid in this direction. "Miss Randolph" is good if one could handle his money like Ali Babi did his, with a peck measure; "Mrs. Widdifield" is most too far North for flavor; "Mrs. Beeton," being English, is rather heavy but very good; "Marion Harland" is excellent; "Soyer" ought to have been a Mexican, he is so fond of pepper; but "Pierre Blot" is the book—*par excellence*. He not only tells you what to use, but how to use it, including the handling of the utensil employed; and this latter is no small consideration, especially in making an omelet. To Savarin they can go for the philosophy of this wonderful art.

With men (the ladies feed on ambrosia) the enjoyment is found, not in the *quantity* but in the *quality*. A few dishes, well cooked and handsomely garnished, give unalloyed delight, while a table loaded with food, ill-cooked and ill-served, is only endurable to the extent of merely supplying our bodily furnaces. "Old King Cole" would have made Gerot his prime minister, had fortune permitted him to taste but once, at his cheery board, of a "spot," or bit of Spanish mackerel, or mutton chop, or potatoes fried in the manner described by our correspondent. It was a loss it will take us in Richmond a long time to outgrow, when Gerot broke up housekeeping and went back to France. We have seen in our day things otherwise, say in our hill country. Drowned in a feather bed, and dreaming dreams as glorious as those of Bayard Taylor, when he drank that "hasheesh," or De Quincy his landanum, we were awakened by the good man of the house, a lighted candle in his hand, and breakfast announced. This thrilled us with discomfort, because it made such cruel war upon our conception of "the eternal fitness of things." However, we obeyed. Our fast was broken by a dish of fried ham and eggs, reeking with grease, some *schmear-case*, and cold bread cut in slices shaped like a clam shell, so portly in the thick part that nothing less than a mouth as ample as Henry Clay's could reach across it. This ending of our dreams was hardly less awful than the after-suffering of the dreamers we name; for, while their hell was fearful enough to be made by Dante or Jonathan Edwards, ours lay in the no less terrific dread of dyspepsia. As the day advanced came the dinner, to-wit: a great dish filled with "*dumpy-noodles und schnits*." For the information of the uninitiated, we will describe this marvelous tit-bit: a piece of fat bacon is put on to boil; to this is added a proper quantity of dried apples with the peelings on, and sundry dumplings of bread dough. The sight of this dish, when served, to anything but a Viking, is absolutely startling, and nothing but the most finished politeness, aided by tansy bitters, could push down those dried apples glistening with little streamlets of grease. And after this came a dessert of cold huckle-berry pudding! We have dwelt on this charming "picture of home life" to show how far a diabolical ingenuity can be carried.

We are glad Colonel Harrison wrote this article ; because we want badly a "healthy public opinion" in this line. Every day the ladies in the South must become more and more self-sustaining, as our servants will hardly be able to survive the demoralization of negro schools and be worth a cent. Nothing necessary is trifling. Leonardo da Vinci, while he painted the "*Lord's Supper*," also invented the wheelbarrow ; and Napoleon, when all Europe was trembling at the thunders of his artillery, and the dread of his power, still found time to send Prince Eugene the most minute instructions about the width and thickness of his soldiers' shoe soles.

—In glancing back over the foregoing, we find that we have served up an *olla podrida*, a Spanish dish that can only be described when we say that it is—indescribable.

[For the Southern Planter and Farmer.]

DEEPENING OF SOILS.—JAPAN PEAS.—RAPE, &c.

When I first came in possession of my farm I committed a radical error in plowing too deep. The former cultivation had scarcely reached the depth of five inches, and I commenced by plowing from nine to ten inches. The result of turning up so much of the subsoil at once, was to make the field almost barren for the time. That year's experience convinced me that not much more than one inch of crude subsoil should be turned up at one time. It is possible that with fall plowing and a liberal dressing of some good manure a person might venture to turn up a little more. The best way to deepen the soil is, doubtless, by the use of the subsoil plow, which stirs but does not turn the subsoil. But the great difficulty is, that it requires an extra hand and team to accomplish this, and comparatively few farmers are before-hand enough to take the necessary time in plowing season to do it. So that the most practical plan of deepening the soil, and the one which most of our farmers will find it easy and economical to adopt, is that of plowing a little deeper every year until a depth of ten or twelve inches is reached. Old fields that have been long under cultivation have a hard-pan very hard to break when the plow has slid along for many consecutive years. Such lands are best broken in the winter, when too wet to plow at any other time. The plow may then be very readily forced into the hard-pan, and the labor both of team and plowman will be much lighter than if the ground was dry. The subsequent freezes will loosen the soil and prevent any ill effects from plowing wet.

Left-Hand Plows.—While on the subject of plowing, I wish to say a word in favor of left-hand plows. For many reasons they are to be preferred to right-hand plows. The lead horse walking in the furrow makes the cut of the plow uniform and prevents the little crooks and nooks so common in lands plowed with right-hand implements. Another very decided advantage is, that the horses can turn hard all the time and never trample on the plowed ground, and the headlands are left light and nice—the only objection is, that it is somewhat difficult to bring the land out right as you commence

in the middle instead of upon the edge. But a little experience will overcome the difficulty.

Japan Peas.—Last year I obtained about a half pint of these so-called novelties and planted them on light, grey land. They made two rows of 60 yards in length, planted two in a hill, hills two feet apart. This I found about the right distance, and the rows should be about three feet apart. The peas received very little cultivation, and as I was absent from home when they ripened, they were about half destroyed by the chickens before they were gathered. They yielded three pecks of good, sound peas. They are very hard, and difficult to cook, but poultry and pigs are very fond of them, and I presume they will make excellent feed for them. I am so favorably impressed with this pea that I propose to plant an acre of them this year. I think they will yield two or three times as much as corn on the same land, and if they are anything like as good as cornfield peas, they will be more profitable than corn.

As your readers may not be acquainted with this plant I will say that it is a bushy plant, somewhat similar in its growth to cotton; the peas are borne in little pods thickly distributed along the stems, containing two and sometimes three peas. The peas are round, yellowish white, about the size of small English peas, and very hard and heavy. I believe they may be profitably raised; they can be gotten out with an ordinary thresher; they are harvested by cutting off the stems close to the ground.

Rape.—Two years ago I obtained a few seed of the English Rape or Kalza. These I sowed in the fall for salad; the growth was so strong that it soon became too large and coarse for that purpose. It was permitted to go to seed, and a few pounds of the seed saved and sown the last fall side by side with Scotch kale. It is now (the 12th of February) a foot high, and nearly ten times the bulk of the kale. The English use this plant for sheep pasture, hurdling the sheep on it during the good weather. I believe it will prove better suited to our wants than the turnip. I shall sow more this fall. It yields seed largely, and from its seed the *rape cake* mentioned so often in English agricultural writings is made. It is said to seed well after being pastured down; I know that it may be cut several times and spring up again vigorously. The first year I cultivated it, I set the plants in rows three feet apart and eighteen inches in the row. The plants grew two feet high and were full of broad, succulent leaves. Two or three stalks made a pretty good feed for a cow, and my cows increased very much in milk while fed upon it. My milk man thought it better than sowed corn. All things considered, I think it a desirable plant for general cultivation, and especially desirable for those who want something green for sheep in the winter. The seed are a little larger than cabbage seed and about a pound or a pound and a half will seed an acre. I think it might be sown broadcast in corn on rich, moist land—such as river low-grounds—in September, and would make excellent pasture for sheep, calves and pigs during the winter.

Hoes.—Looking over the advertising pages of the *Planter*, I notice the advertisement of the Lockwood hoe. I have used them for two years, and find them superior to any hoe I have ever used. I am disposed to recommend it very highly.

Clover.—My clover, seeded the middle of August, is looking finely, and is as pretty a stand as I have ever had. I have found no difficulty in getting a stand on the sandiest soil when seeded at this season. If seeded in the spring it is very liable to be killed by a summer drought.

Chesterfield Co., Va.

T. L. P.

[For the Southern Planter and Farmer.]

PUTRESCENT MANURES—AGAIN.

While in the full enjoyment of the very interesting March number of your valuable paper, I crossed what purports to be an official report of the Discussion of Putrescent Manures, before the Tuckahoe Farmers' Club. I find myself credited with opinions I do not hold and could not, therefore, have expressed. Had we been participating in the hospitality of a host of less doubtful morals than my friend, Mr. Thomas Branch, it might be inferred that his good cheer had somewhat muddled the intellect of his guests, and hence either in the saying or the reporting of my impromptu talk there arose that confusion of ideas so little calculated to edify your readers. As I think I spoke not only the words of "soberness," but "truth," I ask your indulgence while I "rise to an explanation."

Holding that in the application of manures the farmer has *two* ends in view—the production of crop and the improvement of the soil—that the means to these ends within his reach are "*commercial fertilizers*," *domestic manures*, *green crops* and *rest*, I should, had the occasion presented proper opportunity, have attempted to show how the farmer should avail himself of all these instrumentalities, and that the *judicious* use of these constitute, *quoad hoc*, good farming. I did not intend to be understood as attaching *no* value to "putrescent manures," nor encouraging the waste thereof. What I contended for was that with the labor now at command, and *paid for in money*, the farmer could not afford to haul the rough feed and litter of the plantation to the barn-yard to be converted into what we call "farm pen manure," and then re-haul the same to the field after it had been leached of its valuable constituents by a winter's rain and sobbed with sixty-six per centum of its weight in water. I stated that experience had shown that it took *four loads* of this rough feed to make *one* load of so-called manure; that this involved five handlings and haulings, and that, putting the latter at an average of half a mile, the labor would cost double the value of the manure. I estimated the handling and hauling at but thirty cents per trip, making the manure cost \$1.50 per load, and this is what I termed

"heavy drayage expense," which true economy did not justify. As the alternative of this system I recommended the *feeding of cattle on the fields*. But as thus we could not always distribute and apply the manure *as* and *where* it was most needed, I advised that the farmer should rely for the immediate crop upon the *free use* of commercial fertilizers. I am far from underrating the value of well made and well preserved putrescent manure. It is only that *psuedo* putrescence, staggered at by the Virginia farmer, who at heavy expense, accumulates organic matter in a hillside farm-yard, exposed to rain-fall and water-flow (which rob the pile of what little fertility the partial rotting of such matter lets loose) that I condemn as "costing more than it comes to." In all I have ever written—in all my farmers' talks I have urged the *judicious husbanding* of what we call domestic manures; not that I believe the Virginia farmer can rely on these alone for the production of crops or the improvement of soil, but that I hold that the more carefully and skillfully he husbands these resources the better able is he to buy liberally of that most important, if not absolutely essential, agent of successful farming in Virginia, a *good superphosphate*. There is no antagonism between domestic and commercial manures, but they are mutually auxiliary. The average farmer is, however, essentially a partisan. And in this matter he either pins his faith to the commercial fertilizer, to the total neglect of all domestic supply, or else discarding the former as fraudulent and valueless he wastes more labor in hauling and re-hauling woody fibre and water than would buy him a liberal supply of good superphosphate. To us who for so long owned our own labor, the most difficult lesson of the times to learn, is, that *labor has a monied value*; and the secretary of the Tuckahoe Club is not singular when he talks of the necessity of employing team and hands in unprofitable labor, "lest they grow fat in idleness." On a well regulated farm there should be no "spare time" with hand or horse, for with proper forethought there may be always *profitable* employment for both—more profitable by far, in my estimation, than hauling litter to a farm-pen or muck to a compost heap. We all admit that to produce heavy crops at the expense of impoverishing the soil, is "ripping the goose to get the golden egg," but is it not equally true that to improve the soil at a prodigal outlay of labor or money is to "bury your talent in a napkin," which, when the day of reckoning comes, will be accounted "unprofitable" service.

It was not, however, with an eye single to the economy of labor that I advised the Henrico farmers to feed their cattle on the fields, for I believe the trampling of the hoof would greatly benefit their lands. The observation of many years has satisfied me that *broom sedge* (the curse of Eastern Virginia) owes its presence here more to the light mechanical condition of the soil than to any acidity thereof, and that the only way to exterminate it is by heavy trampling. Since, however, the lands of this section do not afford grass enough to justify summer grazing to an extent necessary to this end, I

urged winter feeding on the fields. This, with a judicious system of green fallowing might be relied upon for the permanent improvement of the soil, while the free use of commercial fertilizers would insure the production of crop. I am one of those who have a strong faith in commercial manures, my friends Cowardin and Barbour to the contrary notwithstanding. These are authorities quoted in opposition to my "theories," and yet the former admits that he raises his "cabbage at a cost of \$3 per head" (with what manure he saith not), while the latter certifies in the *Planter* that in his only experiment, with the liberal application of fertilizers, he realized a profit of \$30 per acre, and that "the land has never forgotten the attention paid it so many (20) years ago, but has produced notably better crops than formerly." Does this justify my friend in denouncing guano as a "curse to Virginia?" Ought he not rather to try a few more experiments with, and spend a little more of his "ambitious rhetoric" in praise of these fertilizers? The truth is, Mr. Editor, the grand mistake of Virginia farmers is in applying too little per acre. I cannot recall a single instance in which a liberal application of a good standard fertilizer has failed to pay. It is only the homeopathic doses that we never hear from. But for the want of space I might elaborate this idea farther, as well as defend some other positions I took in the Tuckahoe discussion. After what I have said, it may be well for me to disclaim all connection with the manufacture or sale of commercial fertilizers.

• Loudoun county, Va.

R. W. N. NOLAND.

[For the Southern Planter and Farmer.]

CORN.

There is, perhaps, no other crop grown on the farm which is so important and useful to the average Virginia farm as corn. The grain is excellent food for man and beast; the fodder is equal to the best hay for horses and cattle; the shucks make good feed for cattle, and better beds for the farmer's family, and the stalks make an excellent foundation for a large pile of manure, the dry, pithy stalks absorbing all the liquid manure and preventing any waste; so that a large crop of corn insures plenty of corn bread and bacon, well-fed horses, cattle and hogs, fat chickens and plenty of eggs, and a big pile of manure with which to make another big crop of corn. As corn is so extensively grown and so necessary a product, it is important that we should give this crop attentive and careful culture. Corn loves a rich, warm soil, constant cultivation and plenty of rain. Land intended for a corn crop should be thoroughly broken, and any heavy clay land is much the better for being broken in the fall or early winter, so that it may be mellowed by the frost. Light sandy lands and rich alluvial bottoms are better if plowed but a short time before planting the corn, as they are then much easier to keep clean. Land plowed in the fall should be flushed lightly with turn plows, or thoroughly cultivated or harrowed immediately before

planting, so as to destroy all weeds and grass which have started to grow, and give the corn the first chance. It is much the cheapest and best to work the land well and put it in nice order before planting the corn. On very rich land—as good river bottoms—the rows should be close together, and the corn thick enough in the row to completely shade the ground; but on our average uplands the rows should be four feet apart and the corn thinned to one stalk in a place every two or three feet in the row. Distribute the corn evenly over the ground; one stalk every two feet is better than two stalks every four feet; one stalk, two good ears; two stalks, two small ears, and three stalks, no ears and but few nubbins.

If a planter is used, it will be best to have a man lay off the rows for the planter with a good, long, new-ground coulter. It loosens the ground nicely just under the corn, and enables the planter to run deeper and steadier, tears all the roots and briars out of the way of the planter, and enables the man running the planter to do the work of planting much better. If the ground has been well broken and put in good order, and the corn nicely planted, the crop is half made. On light soils cultivators and double shovels may be used, but they pull horses too hard on heavy land, and for our filthy red lands no implement is so effective as the coulter. It stirs the soil thoroughly to a considerable depth without throwing any furrow, so that it can be run quite close to the young corn, and it is very effective in pulling up the roots of briars and bushes. Frequent cultivation is best while the corn is small, so as to prevent weeds and grass from getting a start, and keeping the soil loose, so that the air and the roots of the corn may penetrate it easily, but all cultivation should be discontinued as soon as the tassel appears. It is time then to stop plowing and to pray for abundant rains.

My own plan is to go over the crop at least four times, viz: First, cultivate with harrow-tooth cultivators about ten days after the corn comes up; next, coulter once each side of the row and close to the corn, working out the middle of the balk with cultivators or double shovels; next, coulter four times to each row and follow the coulters with the hoe hands to chop out weeds, &c., thin out the corn, and straighten up any knocked down by the coulters; and lastly, laying the crop by with one-horse turn plows, throwing a shallow furrow to the corn to smother the weeds, &c., in the row, and support the corn, and working out the middle of the balk with cultivators. When the shuck begins to turn, the blades below the ear to die, and the grain is glazed, the corn is ready to harvest. It is best to top very large corn, but an average crop of upland corn it is best to cut off at the ground, and thus save all the fodder at one operation. Cut off close to the ground, and set up in shocks as you cut it off. Tying three hills or stalks together for a horse about which the shock is set up, stiffens it very much. Put ten or twelve rows of corn in a row of shocks and make the shocks large, as the corn will ripen more perfectly in large shocks and the fodder be

better, and large shocks stand more firmly than small ones. Tie securely and let stand until the corn and fodder are perfectly cured before shucking. Shuck in the field, leaving the shuck on the stalk; keep the fodder nice and straight, and set it up in large shocks when damp with dew, on damp days, to avoid breaking off the blades. Corn fodder will keep well through the entire winter if set up straight with the butts on the ground, as the rain passes off easily, and the air, entering freely among the loose butts and passing up through the shock, dries it off quickly. It is best to make the shocks of fodder so large that one or two will make a good load for a wagon. A good plan is to drive two forks about four feet long in the ground and lay a light rail or pole on the forks and then set the fodder up against both sides of the pole. The one important point is to keep the fodder in a vertical position, butts down; if stacked out of doors in a horizontal position it will certainly heat and rot. Feed the fodder first to the horses, which will pick off the best of the blades and shuck, and then throw it out to the cattle, which will eat up all but the butts of the stalks, and they will do good service in keeping the cattle yard well littered, and adding much to the pile of manure. As corn fodder is much better when fresh, it should be fed up first, saving the hay, straw, chaff, &c., for spring feeding, as they keep better than the fodder, and are more generally secured in barns.

The corn should be sorted as it is picked up after shucking in the field, taking up all the good, sound corn first, and then gathering up the soft corn and nubbins. A careful account with my corn crop for several years, shows that six dollars per acre will cover the entire cost of making and housing a crop of corn (the fodder paying for the cutting and saving), so that, on average land, it is about the best crop we can raise. Seed corn should be always selected in the field as the corn is being cut off in the fall, allowing the nicest stalks, having two or more ears, to stand until fully ripe and dead, then pull off the corn and let it lie in the shuck all winter. Corn so left in the shuck, is not injured by freezing, and sprouts more quickly and surely when planted. By carefully selecting the seed from stalks bearing two ears or more, the yield of corn can be much improved. I have been saving my seed corn in this manner for three years only, and last year more than half of all the stalks, in a field of forty-five acres, had two or more good ears on a stalk, and I hope, in time, to have every stalk bear two ears.

Corn is a rank feeder, and will consume in its growth large quantities of manure, so that stable or yard manure may be applied without stint, but is better if applied as a top-dressing to the sod or stubble land the year before cultivating it in corn. A handful of good compost or of plaster and ashes mixed; or a tablespoonful of a good superphosphate, applied in the hill, pushes the corn finely while small, and in favorable seasons will largely increase the yield of corn, but in very dry seasons have a tendency to fire the crop, and sometimes to actually lessen the yield.

A. A. MACD.

Albemarle county, Va.

SELF-SUSTAINING FARMS.

[The following communication, from the Goldsboro' (N. C.) *Transcript and Messenger*, is marked with such strong sense that we reproduce it with pleasure. Although referring specially to the cotton country, it exhibits points that may, with profit, engage the thoughts of farmers in other portions of the South. Will Capt. J. R. THIGPEN, of Edgecombe county, N. C., and Mr. H. P. POPE, of Southampton county, Va., let us hear their experience also, in the direction of self-sustaining farms?—ED.]

I find myself (speaking for the average planters in this section,) possessed of a gin-house, mules, plows, horses, and all the appliances of an average cotton plantation, with several hundred acres of worn land that will produce, without fertilizer, about 400 pounds of seed cotton, 10 bushels of corn, 7 bushels of wheat and 12 bushels of oats, per acre. I see that the great cotton planters have been called upon by Col. Howard to know what it costs them to make cotton. They estimate it from 9 to 16 cents, average about 11 cents per pound, just about what the present crop will bring.

I make my own supplies, and then all the cotton I can with my labor besides, and by doubling the product of cotton with commercial fertilizers, I make my labor cost me in making cotton about half as much as it would without fertilizers. Living 10 miles from the railroad, (speaking for the average farmer) I sometimes have corn to sell, but I find no one in my neighborhood who wants to buy who has any money to pay for it, so I have to haul it to town. I have to load by daylight and push my mules to make a load a day. I find that it costs me \$400 to haul \$2,000 worth of corn to market, either in the cob or shelled and sacked; while it costs me only about \$25 to haul the same amount of cotton. I find in making corn it injures my land, and leaves nothing to aid the next crop. But when I make cotton I sell the lint only, and have the seed left, every bushel of which is good for an extra bushel of corn the next year.

I find the editors and city folks and big planters are always crying down cotton, and saying the country is ruined by it; but I find that there is no money in anything else, even at 11 cents, and the very planters who croak so much about it, always plant big crops. I am not at all discouraged at the prospect. Being out of debt, and making my supplies, I know that I can afford to make cotton as cheap as anybody else; and it is rather pleasant to contemplate that the present low prices will run off all the city planters (who, when cotton is a little up, plant their gardens and barley patches in it,) out of the competition, and will force all of the big farmers who buy corn from the West, to make their own supplies. The uniform low prices will also neutralize cotton production in other countries and keep it within its legitimate climatic limits. It will also prevent speculation in "futures," for if there is no margin to bet on, there will be no betting.

I beg leave to differ with Mr. Dickson and others about the cost of making a pound of cotton. We must not assume an imaginary

price for our lands, mules, etc., but go out and see what we can get in cash for them. This is the capital invested, not what we gave for the land before or immediately after the war. Then we must not charge the corn that the mules eat at the city rates, but at what we can make it on the farm. I can make corn at 25 cents a bushel, charging the plantation investment to cotton. Then the actual value of cotton seed (that is, what it will make as a fertilizer,) must be credited to the cotton. Then, the whole amount of the fertilizers must not be charged to cotton, but only one-half, as the Professor of Agriculture has clearly proven that they act well the second and third years, showing a permanent improvement to the lands. We hesitate not to affirm it as our opinion from actual experience, that with such a just estimation, a man who raises his own supplies and pays as he goes, can make cotton, one year with another, at eight cents per pound, at the present cheap rate for everything necessary to a farm.

I beseech you, farmers of the country, not to be discouraged by croakers; keep up a good heart, make your own supplies, and make every pound of cotton you can and every pound of cotton seed to make corn, wheat and oats with. Study economy, drink no whiskey, and you and your country will prosper.

[For the Southern Planter and Farmer.]

ONE WAY TO IMPROVE FARMS.

Every farmer has his own pet way of improving land, and many and various are the writers who have thrown in their quota of valuable information on this highly important and interesting problem. Interesting, because it lies at the root of our social well being, while adversity chasteneth, and poverty, under some phases of existence, is an acceptable boon, at least to be borne until more light enters the dark places and lights up a path of exit. Many farmers have improved their lands and are now able to produce some classes of productions that will vie with any in all this broad land. I may instance tomatoes, Irish and sweet potatoes, and many other roots; the Swede turnips, as well as hybrids, as fine, perhaps, as can be grown anywhere; here we have the true elements for mixed farming that will give meat and poultry equal to anything in the world.

Now, sir, while these evidences of prosperity greet the eye of the observer upon every road he may travel out of Richmond, it is painful to hear the complaints loud and long of these honest producers on the soil of a want of a good market; many are unable to dispose of their products at remunerative prices, and many have to carry them back again. Farmers possess, in part, the remedy for this state of things in their own hands. Why are our markets dull and prices low? Why does a farmer load in with \$3 worth instead of \$30, taking him all day to do even that? Why is there so

much expended in wear and tear of carts, horse-flesh, harness, and worry of mind and body by the farmers? Why are times so hard in town and country? These are questions every farmer can answer for himself practically if he only wills it, and he who would be free, himself must act.

Granges have been formed and co-operation is talked among farmers to buy in the wholesale market, with a view to improve our condition; this is all well as far as it goes, but we *must* have reciprocity between town and country; we must have consumers in town who can pay for what they get and use plenty of everything we bring in; but how can city-laborers buy without money? They cannot. The intelligent farmers must lead in this matter, must begin now. Buy only goods when practicable, made in Virginia, this will employ the town or city laborer, and nine out of ten will spend all they earn at once, and you will get your money back again with interest. How common it is to hear persons ask for coffee ground in New York, soap made in New Jersey, cigars from Connecticut and Boston, and other thousand things brought from various outside places, which, if manufactured, compounded or put up at home, would at once give employment to thousands, and thus we should have a home market for our farm produce of every kind. This is the sort of legislation we must have to be a prosperous people, and every farmer, a self-elected legislator, can help make the law that will enforce prosperity. Let us inquire about everything we need, and ask ourselves where is this thing made or put up; inquire of our grocer for the home-made article; if he has it not, ask again, and in a few days, depend upon it, he will have it. To demand home-made goods, even if we pay a fraction more in the purchase, seems to me the true way to reciprocate our material interest and furnish us the means of permanently improving our farms. Many persons are in favor of turning under green weeds for improving land and are much opposed to summer fallowing; this I will leave as an open question, but respectfully submit that to enforce a home-trade in everything possible is the interest, and I have no doubt will be the pleasing *duty*, of every intelligent farmer.

Henrico county, Va.

WILLIAM POLYBLANK.

[For the Southern Planter and Farmer.]

ABOUT THE CORN CROP.

I have tried several methods of working and managing a corn crop since the war, and have read the plans and modes of other farmers, but like none so well as the following:

As to Seed.—I prefer the white flint variety, as it generally weighs more and is less liable to shell in handling. I select my seed while shucking in the fall, always saving the longest ear with twelve or fourteen rows on a small white cob, as corn taken from a red cob is not strictly merchantable.

As to Cultivation.—Fallow in the fall with a three-horse Living-

ston plow; if possible, finish before Christmas, and let the land have the benefit of the winter's freezing and pulverizing. Commence as soon as the weather and land are suitable, after first of April, and lay off with a coulter the rows four and a half feet apart and follow with Harris' corn planter, (manufactured by R. F. Harris, Charlottesville, Virginia, the best and only pattern that I ever saw that was worth patronizing), and drop the corn two or two and a half feet apart and from three to four grains in the hill. I prefer the latter distance, and for every fifty acres of land I run a planter; for one hundred acres two planters, endeavoring to finish planting in six or eight days. I then start all of my coulters, say six (before the corn is up), and run three furrows in the middle of the balk, leaving the two next to the corn until it is up and ready for the hoe. As soon as the corn is up pass over and replant with the hoes. I then start two coulters, run as close to the corn as I can without covering it, and follow with hoes, keeping close up and thinning to two stalks. As soon as I am over a hundred acres, my usual crop, which is generally about three weeks, I commence with six one-horse Livingston plows, and run around the corn *with the mould board to the corn*, and as soon as I am over I return, fill out with three furrows of the same plow and lay by.

I should have stated above that as soon as the corn is out of danger from worms, &c., I pass over, usually after a rain, and again thin the corn with the hand to one stalk in a hill, leaving two stalks in every other hill on bottoms, or wherever the land is rich. I cut down with the ordinary corn knife as soon as the ears are glazed and put in shocks, which are neither so large as to heat nor so small as to blow down; and as soon as I am through seeding wheat, I commence and shuck out in the field, haul to the barn, assort and put away. I have never fallen upon a better plan of saving the stalk-fodder after the corn is taken off than by doubling two or three shocks and letting it remain in the field until wanted to feed off to stock, which should always be done in the fall and beginning of the winter, saving the wheat straw and chaff for the latter part of winter and spring, as it is usually in better condition for preserving. I have found that stalks fed to horses in the fall and allowed to remain in the stables all winter make an excellent absorbent and save much currying and rubbing to keep the horses clean and decent.

R. J. HANCOCK.

Albemarle county, Va.

[For the Southern Planter and Farmer.]

GYPSUM AND CARBON.

I do not by any means deny that chemical action takes place in the earth and other matters constituting the soil, though I hold that the probability is, that this action has been greatly exaggerated. While it is true that some plants seem to prefer particular geological districts marked by the presence of peculiar rocks, *some* especially abound-

ing in limestone and chalk, others in slate or granite, yet it not unfrequently happens, that these plants occur in equal abundance in other localities, where the rocks possess a totally different mineralogical character. From this, it would seem that this selection of plants, as to locality, is to be attributed to the *mechanical* rather than the chemical condition of the soil. We know that soils differ in their capacity for disintegration and power of retaining a greater or less supply of water; for those soils retain most moisture, where they abound in *alumina*, while those soils abounding in *silica*, dry most rapidly, and in this way the chemical character of rocks affects the mechanical condition of the soil.

It is a well ascertained fact, that much the largest portion of vegetable matter is made up of hydrogen, oxygen, nitrogen and carbon; and so it is as certainly known, that nature has made the atmosphere and water the great reservoirs of these elements, and therefore whatever the soil may have to supply for the advantage of vegetation, it is of the utmost importance that it should so discharge this function, as not only not to interfere with those supplies that vegetables have to draw from water and the atmosphere, but actually to promote the passage of the carbon, oxygen, hydrogen and nitrogen through its substance to the roots of plants, by whose power these elements are introduced into the vegetable structure, and this duty of the soil can only be efficiently discharged so long as it is permeable to water, heat, light and air. From these considerations we ascertain the importance of the mechanical condition of the soil: In the moisture, that all observation teaches is absolutely indispensable to vegetation, we have the elements hydrogen and oxygen, since water is composed of these two gases. The carbon that plants require, they take from the atmosphere, where it is found in the shape of carbonic acid gas, which is made up of carbon and oxygen; this gas the plant absorbs from the air, and then the rays of the sun, acting upon the green surface of the leaf, decompose it. The oxygen contained in the gas is returned to the air by means of this decomposition, while the carbon remains in the heat, with which is formed the structure of the growing plant. We have remaining to consider the source of the nitrogen required by plants, about which there are many opinions, but I hold the opinion of Mr. Thenard, as expressed to the Paris Academy of Sciences, in which he denies that the nitrogen comes directly from the soil or from the manure, but is derived from the the air, *through the soil*. The papers that are to succeed this, are designed to show how carbon and gypsum assist the soil in the performance of this function.

Alexandria, Va.

R. C. AMBLER.

The man of ideas has the force to move the world, but he needs the man of practical sense and skill to help him in putting his ideas into working shape.

GYPSUM AS A FERTILIZER.

The inquiry frequently is addressed to the editor, and through him to the readers of agricultural journals: "What is the best method of using gypsum?" "Shall I use it in my compost heap?" "Will it absorb the ammonia by sprinkling it in my stables?" "Will it increase my crops by applying it to the soil; and how much, and how shall I apply it?" &c., &c. Such are some of the questions propounded for an answer, all of which it would be very desirable, not only to those to whom the inquiry is addressed, but also to all the inquirers, to have definitely settled, so that it might be as readily and thoroughly answered as could the same question concerning the application of farm-yard and stable manures to the soil; but with our present knowledge this is impossible. Were all soils and all crops alike composed of the same elements, in the same proportions, and in every respect alike, it would be a very simple question. But while we know that soils vary in composition, and also that soils of similar composition are in different mechanical and chemical conditions, the question is one which no amount of theoretical or practical knowledge can absolutely decide. Not only has the constitution, &c., of the soil, but also the climate and many other causes, an operating influence concerning the effects of the application of gypsum on the soil and the crops grown thereon. Every observant agriculturist well knows that the same fertilizer applied to different soils, and different crops, the same season, will often prove very different in results; on some soils, and to some crops, they prove much more efficacious than on others, and also that in different seasons they also vary.

In some sections, on particular soils, gypsum proves a most excellent fertilizer and increaser of certain crops, while in other sections, or on other soils, and to other crops, the benefit derived is less than the trouble and expense incurred in its application. The most remarkable effects of gypsum have been noticed where it has been applied to clover and certain other leguminous plants and grasses on certain soils, showing that it is a specific fertilizer, adapted, specially, to specific crops and certain soils only.

Experiments and investigations have been on too limited or restricted a scale to establish anything like a uniform theory of its intended application. The most we can do is to advise experiment on different soils and to different crops, and the more extended in locality and soils the better; provided the soils, weather, locality, &c., &c., are accurately noted and results reported; so that comparison of results can be made, and therefrom some general principles be deduced. In making experiments of this nature, everything tending in the soil to affect action should be carefully noted—such as drainage, subsoil, &c., &c., together with the kind of crop it is used upon.

Many experiments, in different modes, are yet needed to arrive at anything like a fixed theory, in relation to the action of gypsum in

the compost heap; so that there is the same difficulty in answering here; so also in answering, definitely, any similar question.

The gypsum of commerce contains a greater or less per cent. of water, according as to the time it has been prepared for market; it is therefore an object to obtain and use it as fresh as is possible. Deprived of its water, gypsum consists of 41.5 of lime, and 58.5 of sulphuric acid; by knowing this, and also whether the soil be lacking in any of the elements which go to make them up, the demonstration of whether the application of gypsum will prove beneficial. But if there is any one thing settled, it is that farmers will not trouble themselves to find out what elements are lacking or are in abundance in their soils, by analysis; therefore we can only advise experiment by application, and this need not be expensive, as but a limited quantity (one bushel per acre) is required to produce maximum results. In conclusion, then, we say, experiment, and report for the general good.

Westboro', Massachusetts.

W. H. WHITE.

NOTE BY THE EDITOR.—We copy the above from the *American Farmer*, as another contribution from a highly trustworthy source in the matter of the use of plaster. Mr. WHITE is known to our people particularly through his articles on the production of seed leaf (cigar) tobacco, a crop which we trust, will become, before many years, one of our staples. At some time in the future, we propose to go fully into the question of cigar tobacco in Virginia.

[For the Southern Planter and Farmer.]

MILLET.

I have been growing millet with success for a number of years; and, as I think very highly of it, and believe it would be more generally cultivated if its good qualities were better known, I am induced to tell what I know about it, hoping thereby to benefit some other farmer. What I say is about the *common* millet, I have as yet had no experience with the *German* variety. Millet is an annual grass, having a soft stalk with numerous long blades, and a fine, large head filled with nutritious seeds a little larger than clover seed. It is of rapid growth, and matures in eight or ten weeks from time of seeding. When cut at the proper time and well cured, it makes excellent hay, as nutritious as timothy or any other grass, I think, which is eaten greedily by cattle, horses and sheep.

The soil best suited to this grass is a rich, sandy loam. It will do well on any rich land not wet or very stiff, but it *must* be in good heart or well manured. It should be thoroughly broken with a two-horse plow and harrowed fine, and the seed sown and harrowed in. It is best to roll it, too, but it is not necessary. On good, high land, I sow one-half a bushel of seed to the acre, but on rich bottoms I find three pecks necessary.

Millet is easily killed by frost, and should not be sown until April, after frosts have ceased, and it may be sown from that time until 1st August. By sowing before the middle of May I have frequently made two crops the same year *on the same land*.

For hay, it should be cut as soon as it has attained its full height,

while the heads are yet green. When it begins to turn yellow and ripen it is less valuable, and cattle do not relish it.

On good, light, high lands it will yield one or more tons of hay per acre, and on rich low grounds two tons, at least. It yields from thirty to sixty bushels of seed per acre. By letting a few acres ripen a supply may be kept up.

Millet is preferable to spring oats, because it does not rust, makes a better growth, and can be sown later, (even after a crop of winter oats, or wheat has been taken off the land). It is better than sowing corn for fodder, because it comes quicker and is much easier to cure.

I know of no objection to millet, but have heard that some say it is injurious to horses. Too large a feed of the *ripe seed* might do the same harm that too much of any other very rich food would do. I think no such objection can be raised if it is cut at the proper time. I have been feeding it to horses and mules for several years past, and have never observed any bad effects from its use. On the contrary, horses, and stock of all kinds, eat it greedily and thrive on it.

F. GUY.

Riverside Farm, Chesterfield county, Va.

[For the Southern Planter and Farmer.]

TO THE LITTLE FELLOWS OF VIRGINIA.

[The manuscript of the following article was mislaid, which accounts for its not appearing earlier.—ED.]

From circumstances over which I had no control, I have been prevented from continuing my articles, as I intended and wished, and you had a right to expect. Those circumstances have been so much abated that I am now encouraged to resume them, with a well founded hope, by the blessing of God, that I may be able at least to give you frequently a short, practical article, in which I shall hope to bestir many of our craft to do likewise, for the good of our dear old Virginia, and the peace, prosperity and happiness of our numerous craft, and all of those so dependent on us. Ere this will reach you the curtain will have dropped on all the sceneries, for good and bad. The gay and gloomy of 1875 will be forever closed from our sight, though its effects will long continue to sadden or cheer us and those we so fondly love. Its close is now well nigh on us; its products almost, and should be altogether, gathered in, and most of we wearied little fellows have now time to draw easily a long, refreshing breath from the toil-spent labors of 1875. Now, would it not be well and wise in all of us to pause, calm down, and take a rational, retrospective view of the few great and numerous little things we have been doing during the year, and carefully mark down all the *pros* and *cons*, add up the profits and losses, and subtract and know on which side of the awful gulf we and our dear ones now stand. If the cheering silver lining of a small profit should even dimly appear, let us correctly calculate and carefully dissect the reasons why they are so small, and diligently exert our best brain and judgment for a more liberal display for the incoming year of 1876. But if, as I

greatly fear it will be too often found, the boot is painfully and fastly fixed on the wrong leg, let us carefully scan the cause of such a saddening effect, and most diligently go to work, that such a result shall not annoy us at the close of the year 1876. My afflictions have been such as to prevent any attention even to my own matters until within the last two months, and of course I have not been able to inspect the doings of others, and must beg you will excuse me for writing so minutely of my own, which sad statement of ruinous facts, I greatly fear, will prove to have fallen on many a little fellow, now too often to be seen in sadness, moping and grumbling in old clothes, haggard looks, empty pockets, exploded credit, and family necessities, complaining of the hardest times ever seen, abusing the government, and damning the politicians and lawyers. No doubt they, like everything else seem to be now-a-days, sadly out of joint, in the general bewilderment of all things everywhere, but if you will carefully read and sensibly reflect over the facts I will now endeavor to give you, in naked, plain language, without the least shade of coloring, you must exclaim, as all of the castaways on the great and awful day of eternal judgment, will honestly, loudly cry out from their inmost heart and soul—"Great God! the fault has been all my own!" This abuse of the government, politicians and lawyers, may do for those who have nothing else to do, but it will neither fill nor make the pot boil, and blest is he and his who can keep the pot boiling and well filled with good nourishing food and keep up the supply of plain, warm clothing in these truly strange and frightfully queer times, in which we are now compelled to be ever and always very diligent to accomplish. Indeed, these times are truly such that no one can now safely venture to run the risk of lazily folding his arms and hug to himself the fond, delusive hope, that the errors and indiscretions of to-day may be corrected by the energies and wisdom of to-morrow. We have been too long rashly jumping at conclusions and thoughtlessly attempting what a little sober reflection would at once have convinced us we had far better have let alone; and often we have been tempted to try to do too much, when, if we had done less and better, we would have had less worry and more profit. We must have time to attend to little things, for mixed up in little things well attended to, are now to be found our chief profits, as I will now attempt to show you. I rented my home place to an old gentleman and his two sons, said to be the best tenants in our county; they together work six good horses, and four regular, good men, by the year, and hire plentifully by the day. They pitched in with a rush, hurriedly seeded, roughly, about 100 bushels of wheat; consequently did not make as much as they would have made upon 25 bushels seeded as it should have been. Hurriedly cut and threshed in the rain, the grain much damaged, straw all lost, a loss on wheat crop. Seeded an oat crop on good land; made a fine crop—cut, threshed and damaged, as was the wheat crop, a loss on the oats planted and poorly worked. On good land their corn crop to be cut down and well secured for feeding

stock and making beef and manures in stables and pens this winter. Made a fine crop. After many timely warnings, Jack Frost laid waste the fodder, and much of it is now standing in the field uncut; that cut is much damaged. The corn, very slowly and carelessly gathered, hauled up and scattered about to be manipulated by the expensively wasting process of two corn-shuckings, laid out on the ground for several weeks, caught in three heavy rains, and at the mercy of a merciless set, who have discovered it is far easier and more quickly done to borrow in a long, cool winter's evening, than to toil in the long, hot summer's sun, and it is astonishing to see how extensively and adroitly they can do it. That, too, has fallen far short of their calculations, and is more or less damaged; they now say no profit on corn crop. The hay crop, allowed to get too ripe before they began. Their mower broke, and by the time they got it mended some several times, the rains came and spoilt pretty much what they had cut and neglected to get up for several days after it had been cut: the mower broke again and was laid aside, consequently no hay of any value—a heavy loss on hay crop. The clover, orchard grass, Randal grass and timothy seeds were allowed to get too ripe, badly cut, tied up and dozened; stock depredating on it, and instead of shocking and frailing it on a sheet in the field, as I directed, they put a parcel of ignorant, don't-care set of freed gentlemen to trampling it into wagons and hauling it to the barn to be threshed in damp, if not in rainy, weather, through a good, spiked machine, and then complained that it would not thresh clean. Why? Because they had trampled out all the good seed in carelessly and senselessly hauling up, and there were no seed to come out; a very heavy loss on grass seed. A plenty of tobacco plants, planted in time, on good land; it grew off most beautifully, 100,000 plants; good for 30,000 pounds, they thought, but the rains came, then they found they had made a grievous mistake in planting and working across the beds and filling up the water furrows. The large tobacco lopped and fell, plainly telling it could not stand all that often repeated dose of heavy rain; cut too soon; crop now supposed to be 15,000 pounds, but it has now to go through the manipulations of day-strippers and night-borrowers; if nicely handled and saved there may be, to them, a profit on the tobacco crop. A garden of an acre and a half, plowed too wet, planted too late, not worked; consequence, no vegetables. Orchard—fair crop; put off making cider till to-morrow, a day no man ever saw—no cider. One of the brag tenants reported a peck of dried apples and a peck of peas; the apples chiefly gathered by the freed gents, the tenants being from home; a loss on orchards. No hogs allowed to run on the place, but a malignant fever, now too prevalent, of big profits for little labor, settled on their brain, and they imagined there was vastly more profit in a crowd of big, fat hogs, than in the lazy, sweltering freedman's high priced elbow-grease, so hard to get out. So at it they went with a desperate vengeance; crowds of pigs roaming at large, pigs and shoats through the cracks, old sows over

the fence, and often all through the gaps carefully left down by the polite freed gentlemen for their lovely misses to walk through without endangering their long trail dresses; grass badly rooted; crops depredated on; corn give out; horses and hogs on short allowance, often none; offal from wheat and oats lavishly thrown out by trusted freedmen who had hogs of their own; horses fell off; hogs lousy, and lighter than they were two months before. Results, about 20 old and young sows, mostly in pig, put in the stable lot, on manure heaps; no shelter; corn lavishly but irregularly fed. Strange so much corn fed and so little fattening, all of this, too, within one hundred yards of one of the very best fattening houses, pen and troughs I have ever seen, built for the very purpose of crowding on fat at the least possible expense and amply sufficient for fifty hogs; but two pet pigs of one of the ladies occupied it, and *she would not, and they could not*; when, too, there was a nicely fixed piggery, well arranged, with all necessary appurtenances, where I formerly kept my sows and pigs. But the good madam thought as her two pigs had first possession they were entitled to it *to the very last, and they should keep it: and they did keep it*. Consequence—meat without fat; little lard; a clear loss of all labor and feed, and a heap of worry to boot. Paths foolishly made; rails extravagantly burnt; gate and bars down, and wheat, from damaged seed, not half thick enough. Now what rational being could hope for good times and cheer from such management? Halt, reader; thinkest thou this an isolated case, or the worst of any? No, no; I fear not. From the mournful cry now heard from all, of the worst times ever seen, I greatly fear there are many like unto it, if not far worse. We have got to pull off, and humbly and earnestly squat right down to our honest level and do, or closely attend to our own business, or we will soon be tapping at the alms-house door, or, more disgracefully, joining the marauding politicians now howling all over the American continent for office and plunder. A wise man once said, "He who would thrive, must himself either hold the plow or drive." That was long ago. Were he here in Virginia now, he would say both hold and drive. Dear fellows, there is no time for shuffling now; the merciless storm is wildly raging all over our land, and he who hopes to outlive it, must wake up and bestir himself, or soon the places now knowing him will know him no more.

Besides attending to our own domestic affairs, I fear we will very soon be compelled to put a stop to the almost daily thefts, better known by the political white-washing technical phrase, defaulter. For, be assured, those in authority are never, no, never, going to do it, not knowing how soon, from their tempting position, the same demands of justice may have to be measured out to them. I am now closely couched down to my level, at my post of duty, in my old office, 16 by 16 feet, struggling hard and faithfully to practice what I have tried plainly to preach. I have reserved the yard, garden, orchard, grass lots, and enough land for me to try my prettiest hand on, and will do so from the bee to the beef, from the

garden to the tobacco crop, and shall keep a daily account of all and everything, fondly hoping to be able to give a good account of cheering results, and live to see others do likewise for their own good and the general prosperity of our dear old Virginia.

December 7, 1875.

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AN IMPORTANT LETTER FROM THE PRESIDENT OF THE
STATE AGRICULTURAL SOCIETY.

OFFICE OF STATE AGRICULTURAL SOCIETY, }
13th March, 1876. }

Editor Southern Planter and Farmer :

I have read the articles in your issue of the present month bearing on the State Agricultural Society, and hope that they, and others which may succeed them, will have the effect of awakening an increased interest with the people of the State in the affairs of an organization which is so intimately connected with their own prosperity and that of the State government.

Since the war, the State has been financially paralyzed, and has been unable, or unwilling, possibly, to do anything towards the development of the agricultural, mechanical and mining interests, *which lie at the foundation* of its own and the people's prosperity.

The Agricultural Society, alone as a central agency, and the District Agricultural Societies, have been the only public agencies which have worked for the development of the resources of our State, and some of the results of this work are worthy of mention :

At the close of the war, we were left stripped of everything except our lands, and these had to bear the heavy burden of anti-war debts, in addition to the existing necessities of subsistence. We had not left us sufficient live stock for the plow and for food ; our factories were without capital to prosecute their business ; our merchants had to meet their suspended obligations which were due at the North ; our old and familiar labor system was destroyed ; and, without further citation, our condition appeared almost hopeless ; but, as a brave people, we felt and recognized the duty to meet the situation. How should it be done ? and this was the puzzling question. Its true answer seemed to be, first, to pay our debts, personal and State, as far as we were able ; second, to invite immigration and sell our surplus lands ; third, by judicious and thorough cultivation to make profitable, to the extent of a full support, at least, the lands retained ; fourth, to re-establish our factories, trades and commerce as rapidly as means could be made available ; fifth, to develop the mineral resources with which Providence has blessed us ; sixth, to produce, and *perfect* the *breeding* of, our own live stock ; and by these *leading efforts*, and a strict economy, strive to re-establish individual and State prosperity.

The aid which the State Agricultural Society has contributed to

this scheme of restoration may be briefly stated: It has held seven annual fairs, and distributed not less than *fifty thousand* dollars in *cash* premiums (saying nothing of medals, plate, diplomas and certificates of merit, which by some are valued more than money), towards the encouragement of the products of the farm, garden, orchard, vineyard, domestic household; improved and thoroughbred animals and fowls; agricultural implements and machinery; general manufactures; mineral products; essays on practical agriculture, horticulture and manures, as to kind, application, results, &c.

Valuable aid has been contributed in the same direction by the local or District Societies, and the effects of the whole cannot be overlooked:

1. The production of our leading staples now almost, or quite, equal any former period.

2. Garden, orchard and vineyard products have largely increased.

3. We are now breeding in our own State thoroughbred horses, cattle, hogs, sheep and poultry which will equal those of any other State or country.

4. We have agricultural implements and machinery produced by the skill and labor of our own citizens which cannot be excelled.

5. Our mines are being developed, which show products as to kind and quality of superior grade, and of almost limitless supply.

But if these facts be true, as they are, the question may be asked why are our people and our State so poor? The answer would involve matters of political economy, which are not within the scope or range of my present purpose, even if I had the ability to give to it a satisfactory response; but I may say that it only needs patience, energy, confidence in our strength, economy and effort to secure a realization of the benefits which should follow from the exercise of these virtues, and their proper application to the resources we have at command.

I am now brought more directly to a consideration of your article bearing on the affairs of the State Agricultural Society, as one of the agents in this work of progress. The second paragraph, in which you say "the present condition of the Society is by no means flattering," *I dissent from in toto*. The idea seems to have been generated by two facts: First, because the Executive Committee expressed at their last meeting a doubt as to the propriety of holding a fair the present year; and second, that the Society owes a debt of about \$12,000, and is, therefore, thought to be embarrassed.

The considerations which influenced the Committee at their last meeting in regard to the propriety of holding a fair this year were wholly different from those suggested by your article. The Committee, as the guardians of an important trust, were unwilling to put at hazard the current means of the Society at a time when success was in any degree doubtful, unless they could be sustained by a *proper public sentiment*, and, if necessary, by *material aid from sources from which it should properly come*. This is the year of a *great centennial* movement at Philadelphia, in aid of which millions will be

spent in the effort to make it the grandest display of a *century* of the material resources of our own extended country in contrast with those of the nations of the whole world. The question, then, very naturally arose whether this *great Fair* would not *overshadow* and render dull and profitless the usual annual State exhibitions, and especially those, like Virginia's, so nearly contiguous. No action had then been taken by our General Assembly for a proper representation of our State at Philadelphia, and the indications were that none would be. And if this should be so, the prevailing sentiment of our Committee was that we should not only hold a fair, but endeavor to make it commensurate, so far as our State was concerned, with the *centennial year* and all the associations which attach to it. The resolution adopted by the committee was, therefore, intended to call forth some public expression and the material aid which was justly due to the Society, if the sentiment of the resolution should be disapproved. In conformity with what I supposed to be the judgment of the Executive Committee of the Society, as soon as the action of the General Assembly on the Centennial was definitely taken, I addressed a letter to the Speaker of the House of Delegates, from which the following is an extract:

"Now that it is certain that Virginia cannot, and ought not under the present circumstances, be represented at this great World's Fair, it may be wise that something should still be done to make the centennial year memorable with us, and that it may not be wholly lost by no effort to awaken an interest in the development of the great resources of our beloved Commonwealth.

"People from abroad and from distant portions of our own vast country, who respect and love the traditions of Virginia, will doubtless feel great disappointment when they visit the Centennial and find nothing there covered by the authority of her great seal; but may not this disappointment be somewhat, if not entirely relieved, by offering to them here, at our own Capital, *all and more* than could have been shown at Philadelphia?

"In view of the fact that the Centennial closes on, or about the 1st November, and the time of holding the Annual Fair of the State Agricultural Society, is the last week in October, I now suggest that the Legislature will appropriate the sum of \$10,000, and the State Society the same sum, making a total of \$20,000, for a grand display of all the resources of the State at a Fair to be held by the Society the present year; and to secure a proper co-operation between the State and the Society, the Governor and five other citizens, (to be appointed by the Legislature), say one from Tidewater section, one from Piedmont, one from the Valley, one from the Southside, and one from the Southwest, shall unite with the Executive Committee of the Society in all arrangements necessary for the exhibition."

This communication was courteously received by the House of Delegates and referred to the appropriate committee, who reported adversely on its suggestion, on the ground, I learn, that the State could not afford to spare the money.

These facts should show that our committee did not intend to permit the question of money to control *them* in the matter of a Fair, provided they are sustained by a proper public sentiment, and such a conjunction of effort and means as would be likely to insure such a success as the peculiar period calls for.

The pecuniary condition of the Society, or the second idea, which you suggest in this connection, and its supposed embarrassment has less foundation than the first. I venture the assertion that no business firm or corporation in the State, in proportion to means, has a better credit than the State Society. At the close of the war the Society had invested in Virginia State bonds (old issue) \$60,750, \$4,610 of funded interest, together with an amount in *new issue* bonds (those issued during the war period), and also an amount in Confederate bonds. The two last were, of course, worthless under our present Constitution, and the two first, or \$65,360, constituted its entire resources. This fund was, by the results of the war, reduced in value one-half, or probably less, but say \$32,680, and further by the operation of the funding act, and it has been used in the purchase and fitting up of our Fair Grounds—the value of which cannot be much short of \$125,000, and on this we have a floating debt of only about \$12,000. After the payment of our premium list, (amounting annually to about \$7,500 *in cash*, or a total of \$50,000 since the re-establishment of our Fairs), the salary of the Secretary and incidental expenses—as to which it should be borne in mind that the President and Executive Committee do not receive a dollar, for they give their time and services free, and, at the same time, pay their own personal expenses—all income has been appropriated to permanent improvement of the Society's property; and it may not be amiss to mention that this debt has been largely increased—to the extent of one-half, at least, by damage from two wind storms which blew down houses and enclosures, which have been replaced, and the present condition of the property is complete and more perfect than at any former period. It will be seen, then, that as against a fund of \$43,874 in *funded* State bonds (worth at an average since not more than fifty-five cents in the dollar, or a total of twenty-five thousand dollars) we have a permanent investment in *real estate*, worth at the very least \$100,000, with a debt of about \$12,000, or a net balance of \$88,000, or nearly *four times* more than we had at the close of the war. Your stricture, therefore, on the officers of the Society and their management of its affairs is, I hope, fully answered; but, at the same time it gives me pleasure to say that we accept your disclaimer of any personal application of your comments.

I fear you will find this communication too long, but as you have provoked it, I hope you will bear with me as there are other matters in your article which should be briefly noticed. Your outline of the scope of the Society's work is, in the main, to be commended and approved, and most of its suggestions have heretofore had the consideration of the Executive Committee, and so far as their means would justify they have endeavored to give them practical effect.

The geology of the State has been a subject of special consideration, and repeated efforts have been made to establish here, in the capital city, or on the grounds of the Society, a mineralogical cabinet, and, in connection therewith, to procure and keep on exhibition physical maps of each county, showing their soils and adaptation to particular or general crops, orchards, vineyards, &c., and all free to the inspection of persons who may be seeking investments in our lands. Nothing of greater importance could be done towards facilitating the introduction of capital, aiding the people in disposing of their surplus lands, and adding to the income of the State Treasury. For the past two sessions of the Legislature, acting under the authority of the Executive Committee, I have presented and advocated among the members and before the Committee of Reference, a bill to carry into effect this important object but without success. The only appropriation asked for was \$2,000 to \$3,000 as a sum with which to pay the salary of a competent scientific officer to take charge of the department—the Society binding itself to provide the necessary buildings and meet all other expenses. No person opposed the scheme or doubted its wisdom or importance, but its failure resulted from the *chronic* complaint of a lack of money in the Treasury. It is useless to reproach our legislators for the large sums which have been for years past wasted in unprofitable legislation, and their lack of forecast by not contributing to this and such other enterprises as were calculated to add to the wealth of the State, which is fast wasting away under the effects of semi-repudiation and the lack of strong and vigorous efforts to restore confidence and credit.

Failing in these efforts to secure the assistance of the State in the establishment of this scientific department, the society was still unwilling to forego all effort to accomplish the work, and it was determined to make an appeal to the people for an increase in the life-membership. A short address was accordingly printed and circulated throughout the State, and agencies established in each county. The census of 1870 showed that there were, in round numbers, 80,000 proprietors of farms and factories in the State, and probably a number half as large engaged in mining, general merchandise, and the professions, who are all directly dependent on the producer, giving a total of at least 120,000 persons, other than the laboring class, who are interested in the benefits to be accomplished by such a department. If then, but *one in twenty* of these persons would become a life-member of the Society, it would give a fund of \$120,000, which properly invested, would afford an annual income sufficient for the purpose and leave a good surplus for an agricultural and mechanical museum; an art gallery in which would be displayed the portraits of men eminent in agriculture and mechanics, life-likenesses of animals, fowls, &c. With such a department the Society's work might be seen and felt each day of the year, and their Fairs would be its annual re-unions, which would bring its members face to face for mutual profit, pleasure and encouragement.

Whilst, as yet, but a small number of new life-members have

been secured by this effort, I trust that the work is begun and will be fully accomplished, and that this discussion of the Society's affairs in your valuable journal, will be the means of arresting public attention and materially aid in the accomplishment of all the purposes set forth.

I must pass over your numerous suggestions as to the management of our Fairs, as to notice them in detail would make my communication, already too long, tedious and unbearable. Suffice it to say, that we will try to profit by them to the extent that they be novel, worthy and practicable. And, Mr. Editor, you should be more liberal and less captious in your condemnation of a number of intelligent gentlemen from all portions of the State if, in their judgment, they should administer the affairs of the Society in a manner different from that which you would point out.

Your observations in regard to the office of Secretary, so far as they are divested of all personal application, meet with my hearty approval. It is next to the President, the most important office connected with the Society; and, as he is the only bonded and salaried officer, it is of the utmost importance that he should give his *whole time and thoughts* to its affairs; and, to enable him to do this, he should have a salary sufficient for the comfortable support of a man, (with the attachments of a family), who is ripe in years and judgment. I do not exactly know what you mean by "a young man;" but certainly, his years should not be such as to detract from his mental or physical ability to discharge the duties of the office. After an official connection with the Society for more than *twenty years*, I must frankly say, that the severance of this office from all other business and the provision of an adequate salary is one of the most important demands which now rests upon it.

In conclusion, I will say that the article from the pen of our worthy ex-President, Mr. Harvie, has, I hope, been substantially answered by what I have already said, and that his views are, at all times, entitled to the highest consideration, and they are not diminished in importance by the manly and frank manner in which he expresses them. The article, also, of the other worthy and firm friend of the Society, who does not sufficiently preserve his *incognito* by the transposition of the letters of his name, will commend itself to the Executive Committee when they come to work up the details of a schedule of premiums for the Fair.

Very respectfully,

W. C. KNIGHT,
President.

[For the Southern Planter and Farmer.]

THE PEANUT CROP—HOW RAISED AND PREPARED FOR MARKET.

The peanut (*arachis*) is one of those mysterious leguminous plants found in class, (*Diadelphina* and order *Deckandria*), is an exotic, but has been cultivated in this region, more or less, for the last fifty years, but did not attract much attention until about the year 1850, when it made its first appearance as a field crop; since then it has

continued to increase until now, and has become one of the staple crops of a few of the tidewater counties on the south side of the James; and, by the way, is a very profitable crop when properly managed and rightly understood in all of its details. I have been cultivating them yearly since their introduction as a field crop—am living near the centre of their radiation, and will now proceed to give you the result of my experience.

In the first place I would select a compact, fine, sandy soil, (not friable) nor pebbly—high and thoroughly drained. The land should be made thoroughly calcareous, and fertilized to that degree that will insure from six to eight barrels of corn per acre, (medium size); if it be fallow land I would plow in October, and re-plow with one-horse plow in March; though land of that capacity that has been in corn the year previous will make very fine peas; (the deeper the land is broken the better). If the land is at all cloddy, harrow it thoroughly and get it in good tilth. At any time from the first to the middle of May, lay off the rows, three feet apart, with a shovel plow, and put in your fertilizer (if needed). I have used many different kinds of phosphate, at the rate of two hundred pounds to the acre; have found as much benefit from the "Star" phosphate as any that I have used. The fertilizers now out, I would list up the land with any good one-horse turn plow; then we have a roller about twenty-two inches in diameter, concave, with three pegs about two inches square and as many long, though pointed, which follows on after a scraper that pushes aside the clods. This machine is drawn by one horse, and levels off the bed and makes a hole at regular intervals to drop the seed in, say twenty inches apart; one hand follows on and drops two kernels in the holes, rubs his foot over and covers the pea about one and a half inches deep, which will be up in eight or ten days, if the weather is favorable. After the peas are up, and as soon as the grass makes its appearance, we take a small turn plow, (A. 6) and bar off every other row, which leaves one to weed the grass in; the hoes come immediately after the plow and scrape the grass in the unplowed row, and sufficiently far from the peas to cover it all up with the same plow, which goes immediately back for that purpose—the scraping now over. In about six days we go with the small shovel plow in the same furrow, the hoe hands follow on and weed the peas, loosening the dirt around them and picking out all grass that might have escaped the notice of the scrapers. This being done, if there is a good stand of peas on the ground, the cultivator has only to repeat his cultivation often enough to keep down grass and weeds, (say three good workings), not less if the land is at all inclined to be grassy; this will bring us to the middle of July or first of August, when a small sweep may run down the rows and finish up the cultivation; it is best not to disturb the vines with the hoe after the tendrils begin to peg down—permitting a good stand, and the cultivation over the ground nearly covered; then we want a plenty of water all through August and first of September to keep off *pops* (or *abortive hulls*). About the 10th of October the peas are ready for harvesting; we take a peanut plow with a long

shear sharp enough to cut the tap roots, with fingers attached, that hoists them nearly out of the ground; the hands follow on and shake them, leaving them on the hill where they grew; after getting as many out as we think we can stack in twelve hours we turn back and commence shocking, provided the peas are not wet with dew or rain. We have poles cut and pointed, say about eight feet long, which is about as high as one cares to reach; we lay down two fence rails, say eight feet apart, cross them by two others at each end one foot apart, which makes room for six shocks that will hold six bushels of peas; we then drive our stakes firmly in the ground between the rails, and have the boys to bring up the peas, taking care to select the most careful to shock, which is done by opening the vine and bringing the tap root up to the stake, which makes the circumference of the shock but little larger than a good sized vine where it grew; we press the vines down on the shock pretty tight, and endeavor to get as many on a pole as we can, and to have them of uniform height. It is often the case that we have grass enough near by to make a small capping to keep out the rain. Shocking done—in about three weeks they are cured enough to pick. It is best then to haul them up, worry the poles a little, and hoist them out of the ground, one hand at one end of the shock, and another at the other will hand them to a third in the wagon, which will hold generally about 15 or 18 shocks; put them up compactly under the shelters just as they were shocked, and when the picker gets them down, they will not be tangled at all. A good picker will pick and separate (that is keep the dark and bright ones apart, by having two baskets), some five or six bushels per day. I have had hands to pick more, say eight. They may now be bulked without danger of mildew, if they have escaped that pest in the shock. The next thing is to carry them through the cylindrical rubber to cleanse and burnish them up. If they are clear of *pop hulls*, they are ready for bagging, and for the market, if the price will net the producer \$1.50 per bushel; if not, my advice is to plant them sparingly. The cost of picking is generally 12½ cents per bushel, and it will take about two bushels of seed per acre to insure a good stand.

I have now given you my views in relation to the kind of soil that suits them best, together with the *modus operandi* of cultivation; and I want now to say a few words to my brother Patrons in relation to the extension of the area of the *arachis* plant—remember that there is but a very small area that is naturally adapted to its growth, and that the people in that area have very unwisely made a specialty of it, have increased their acreage, and in many instances, planted them on lands that fell far short of a paying crop, neglected other pursuits that were essential to a support, which had to be made up out of this money crop that would not meet the cost of production. What is the consequence? The supply is greater than the demand, at paying prices, and in many instances, the man who has handled money freely and indiscreetly, has found his condition such that he could not hold his crop after it was made, but must put in on the market to meet the advances that his commission merchant has made in the shape of

fertilizers and provisions. I am thoroughly convinced of the fact that if our peanut farmers would curtail their crops at least half, they would realize double the profit they now do, and have the half of their lands and labor in something else; would be able to make their support at least, without which, no farmer can be independent—the handling a good deal of money at times, creates an extravagance that no fictitious appearance can satisfy.

Now, would it not be far better to curtail the area one-half, fertilize that a little more, so as to make about three-fourths the quantity, which would enable the producer to control the price, and keep it a little above the cost of production. As it now stands, they can't control it, and it is below the cost of production. It is a very exhausting crop to the land, and one that requires so much labor that no farmer that enters into it extensively can improve and keep up his lands; and that man that handles money and spends it extravagantly at the expense of his land, will soon find himself like the man who has a small quantity of money in bank, and is constantly drawing out and putting none in, will soon come to the bottom, when his drafts will not be accepted.

As I have before told you, I am living in the centre of this peanut region, have had twenty-five years experience in their cultivation, and as many in observation, and I really am not prepared to say whether they have been in the aggregate any advantage to the producer or not. I sometimes think they have not. Though I flatter myself with the belief that I have been as successful in raising them as most people; have raised one hundred bushels to the acre; have had an entire crop to average eighty-five bushels to the acre; have sold them from \$3.25 to \$3.75 cents per bushel, and have always picked my time to sell them. Still, when I take into consideration the great amount of work, and the great drawback to other improvements, so essential to the prosperity of a country, I have my doubts whether they are of any real benefit in the long run. Now, if what I have written should meet with your approval and be of any use to my brother Patrons, you may give it all the publicity you please, and I will answer any further enquiries you may feel disposed to propound in relation to the everlasting peanut.

Isle of Wight county, Va.

ROBERT BINFORD.

NOTE BY THE EDITOR.—A crop that reaches now in Virginia, as much as 500,000 bushels *for sale*, is by no means an insignificant matter; and we are sure that every reader of the *Planter* will thank Mr. BINFORD as heartily as we do, for his excellent description of how it is managed. It is with the peanut as with cotton and tobacco: no man can afford to produce it and neglect to provide *also* the crops necessary to support his family and stock. If he does, he is in his horn-book as a manager, and will most assuredly come to grief if he keeps at this way long enough. Our acquaintance is not limited in the peanut region, and it has occurred to us that the growers would probably lose more in the end, than they gained from the crop, *by the indiscreet use of lime*. The soil is light, (largely composed of silica), and when the lime has induced the giving up of all the material it is able to make available, it is probable the subsoil will in time be covered by a layer of hard mortar, and the land become utterly barren. Will Mr. BINFORD tell us whether or not our apprehension has any foundation? We are not absurd enough to put any theory by the side of field experience and intelligent observation.

[For the Southern Planter and Farmer.]

IMMIGRATION.

A SUGGESTION THAT IS ONLY TOO TRUE.

Having read so much on the subject of immigration to this section of Virginia, and the means necessary to secure it, a thought struck me, which was this: I don't read much in reference to the means in operation to prevent it, except bad roads and heavy taxes. Now, sir, I would remind your writers and readers that immigration agents have sadly too much varnish and high-colored paints at command. Representations are made leading persons to suppose that all the tools they require (or nearly so) are forks and shovels to collect greenbacks and five-dollar gold pieces. The result is, that men with their families come here to be disappointed, disgusted, and return home to do more to prevent than all your agencies do to promote immigration. One dash with a muddy brush will spoil a lot of well set, bright water colors.

Prince Edward county, Va.

A BRITISH RESIDENT.

NOTE BY THE EDITOR.—There it is, in a nut-shell. A State without any *authoritative*, and therefore disinterested, arrangement for the dissemination of TRUE information about its resources, whether of lands, mines, or what not, must expect damage from the use of rose color by private individuals who have "an axe to grind." This damage has come, and is coming more, despite the efforts of the authorities to move the world with a rye straw. Declamation is only wind, and like any other "sound and fury," it signifies nothing—valuable.

SOME HINTS, IN THE MATTER OF MANAGING
TOBACCO, OF GENERAL SERVICE.

I do not propose, writes a farmer to the Paducah (Ky.) *Herald*, to know more about the growth and handling of our great staple than a great many that may read this, yet I do feel that there may be some good done by a timely hint to many. This is the time for stripping and sowing seed, so I will confine myself at the present to the *modus operandi*. Great care should be taken in assorting tobacco. It is done at a time when no other farm business is pressing. Even if this was not the case, it would pay well not to hurry over and bundle it up as you would fodder. Many a farmer loses all his profits on his crop by bad management after it is cured.

In stripping always make three classes. The trashy leaves ruin what we call lugs, and lug leaves with the selections have the same effect. By all means do not put long and short leaves in the same bundle; neither put bright and dark together. Tie all grades neatly; not over eight leaves in a hand. It is a mistaken idea that lugs should be tied in large bundles. It can never be straightened out in prizeing when tied that way. There is as much profit in handling low grades carefully as in good. Never suffer tobacco to hang in sheds, near the ground, after it is cured, that will cause it to mould and mildew, which makes the worst type of a sample. Hang each day's

stripping on thin, straight sticks, and crowd it close together till you are done; then open it out so it may all come in good order to bulk at the same time. If you prize your own crop it will require skill and judgment to make it pay. Never put two classes in the same hogshead; had better sell to a dealer at home than do that. Pack one hand at a time; draw it through your hand a time or two to get it straight. If you think you are sharp enough to hide lug tobacco in a good hogshead you are mistaken. Two dollars have been lost to the farmer where there has been one made by false packing. Prize leaf in as dry order as it will bear handling; lugs and trash may be in high order; bright leaf should be prized hard. Never allow your tobacco to be sampled till it has stood three or four weeks after prizing, unless you have put it up wet.

Now, in regard to sowing seed. Sow as early as you can; no danger in sowing too many. There is about as much harm done by burning the ground too hard as there is of not burning enough. There is great danger of burning light soil too much. Do not dig the ground deep except in very rich soil; two inches is deep enough any where. Put on a good coat of hen manure after the ground is dug. Cover the bed well with fine brush.

In regard to seed, yellow or blue Pryor is the best of all; the former for light bright, the latter for heavy shipping leaf. There are other good varieties of broad leaf. This narrow leaf is a curse to this country. It costs the farmers that raise it thousands of dollars each year. If you have any seed of it burn it up, and you will be a benefactor. Do not plant more than you can cultivate well. The market is now glutted with low grade tobacco.

[For the Southern Planter and Farmer.]

REPAIRING POST FENCES.

A neighboring farmer in passing through my farm lately, commended as something new my way of renewing an old post and rail-fence. It is certainly inexpensive, and as it may be new to some of the readers of the *Planter and Farmer*, I will explain it. I have a lot fenced with a six-rail post fence, the rails and posts both of chestnut, the post mortised, built by my predecessor on the farm. The rails and posts were perfectly sound above ground but the latter had rotted off at the ground, (as is usual with chestnut posts after six or seven years), and the fence was leaning and propped in every direction; to save the trouble of pulling down the fence, mortising new post and putting it up again, I had holes dug close beside the old posts, in which I placed new posts just as they came from the woods, then, with a piece of baling wire, tied the top of the old one to the top of the new post, and where that did not hold the fence steady tied them at the bottom also. They say a chestnut rail or post will last a lifetime above ground; so when my new posts rot off I expect to replace them to the same set of rails and mortised posts, thus making one building of the fence last sev-

eral sets of posts. The thing seems so simple that I had not thought there was any novelty about it until my neighbor expressed his surprise and pleasure at the device, which may be applied to any other post fence where the part above ground is sound and posts have rotted off.

Charlottesville, Va.

H. M. MAGRUDER.

[For the Southern Planter and Farmer.]

SOME OF OUR GRASSES.

At your repeated request, the following is sent. You have my free permission, and equal suffrage, to print or burn, as you may prefer. Being a learner, not a teacher, in farming, I propose only to state facts:

"Doctors differ," do they? So do farmers; so do all. How to plow, how to harrow, how to sow, how to reap? Ask any intelligent club, even of practical farmers. What answer? As many opinions, likely, as individuals present. Will you reproach them for this? Not wisely, for truth is the resultant of divers and diverse views; and when men cease to differ, there is an end of progress. All science or art, all life, is experimental: the inevitable result of our probationary state, and (rightly understood) the highest evidence, out of Scripture, of our immortality. But though opinions vary, a fact once found, is a fact forever. The only difficulty is to interpret it correctly. I mention below some facts about our grasses. If some one will give us another, and another, till we get a good body of facts, theories and opinions will take care of themselves.

1. *As to Orchard Grass.*—One of our oldest and best farmers is said to have thought orchard grass to be worth as little as broom-sedge; while, *per contra*, friend Washington, of Caroline, enters it as one of the articles of his creed. Some years ago the latter stated in your magazine a series of facts in support of his opinions. I add others for what they are worth.

First fact: About 1866-7, wanted to sow orchard grass; consulted as to time and mode the Ivy-creek farmers, the late Col. T. J. Randolph, and others (and read all that friend Washington had to say about it, then or since). Some advised fall sowing with the wheat; others, spring sowing, to be harrowed in on the growing wheat, with a sprinkling of opinions in favor of all intermediate times and modes. "Split the difference" as near as possible. Sowed on a field of 47 acres one-half the seed in the fall, as some advised; the other half on the wheat in the spring (14th April), and harrowed it in, as others advised. To dismiss this part of the subject: the plants from the fall sowing were only about as 1 to 20 of those from the spring sowing, and the harrowing of the wheat was of great benefit to it. (Query: Might not an earlier sowing in the fall, or even summer—say at nature's time, from July to last of August—be better than any other? Sow *winter* oats, say in July or August, and the grass seed with it. How would it do? Oats is generally considered a bad

companion for grass seed. Would the difficulty be removed by sowing it on my early sown *winter oats*? Will Col. John Willis, of Orange, or somebody, tell us all about it? He knows.) Afterwards sowed several fields and meadows in orchard grass—particularly one of 67 acres, 15 of it meadow creek bottom. In the meadow sowed only timothy seed; in the rest of the field a mixture of timothy, clover and orchard grass seed, and 280 pounds of guano to the acre sowed with it (on one-third of the field a No. 1 Peruvian guano—so-called; on one-third, “Gilham’s Old Dominion”; on the other one-third, “Bentley’s Wheat Mixture”). Good stand on all; grass crop cut from it twice. Then came the great drouths of 1868 and 1869, both of which commenced early and lasted late, as all farmers well remember. Towards the close of the last you could walk through any of my fields or meadows and, taking hold of the stubble of the timothy, pull up the withered and dead bulbs by the handful, as I did repeatedly. The earth had shrunk away from them, and they from the earth, so that they rested in funereal urns of baked clay. The clover was invisible, or nearly so, and almost all vegetation was parched up. It was a pitiable sight. At this very time the orchard grass was lush and vigorous. I conclude that on my land orchard grass is a good grass for dry weather. In fact, I am led to doubt if anything but a continuous sirocco will kill it in this neighborhood.

Second fact: The field of 47 acres above mentioned was pronounced by Mr. William Gilmer, of Albemarle, Maj. E. Taylor, of Orange, and other farmers, to be “the best take of orchard grass,” or equal to anything ever seen. Since that time it has been the “standing pasture,” and very heavily grazed and trampled. Whether from this cause alone, or in connection with the cold and damp character of the soil, the orchard grass has almost entirely disappeared from it and its place has been taken by nature’s grasses of spontaneous growth. From some cause it does not seem to stand hard usage as well as the indigenous grasses, particularly the Kentucky blue grass and the Virginia blue grass. These last seem to be indestructible on good land.

Third fact: Last winter, you will remember, was a severe one on grasses, in that the frosts and cold commenced early in the preceding fall, and protective snows were few and of short continuance. My stock did not go into the winter as well off as usual, for lack of a sufficiency of the late grasses. Wintered 9 calves (and 3 old horses, one of which died, and another was killed during the winter) in a meadow of 23 acres standing in orchard grass and clover. The stand of orchard grass was thin—perhaps not half of a good stand. Cut over it in the summer and stacked a meagre crop of hay. The clover, of course, gave no winter grazing. The calves had no grain or other food given them, and came out in the spring in better condition than ever before (except once, when with little or no grazing they ran to excellent hay the whole winter). The remarkable fact was, that though about midwinter (on account of the severity of the weather and my fears that the grazing would not be sufficient for

them) I took down the fence around the hay and let them run to it, they scarcely touched it. My belief is, that they only did so when the sleet and ice so covered the grass that they could not get to it. My overseer estimated that the calves and horses had not eaten, when the spring opened, more than 300 pounds of the hay, and I think he was not far wrong. I conclude that in our section orchard grass makes first rate winter grazing.

2. *As to Lespedeza Striata Grass.*—It has a pathetic history. It was first introduced to the Virginia public by the Rev. Mr. Mott, of North Carolina. Like all men who accomplish results of permanent value, he was an enthusiast; and, though an indispensable virtue, enthusiasm always attracts hostility. If it endures the premature prediction of the end, as it is apt to do, it is sure to provoke revenge—the pointed finger or the indignant taunt. This was his fate. Honest, conscientious (as I am informed), and believing the result (under proper conditions), he promised to all what, through neglect of some in preparation of the soil, in sowing, or something else, was not realized by them. They were disappointed, and were reinforced by those whose land, whose circumstances, &c., &c., were unfavorable. He received from many sources letters of denunciation—that he had deceived the people; that he, a minister of the Gospel, had robbed the public, &c., &c. It embittered his last days. If he did not die of a broken heart, he died with a sorely weary and wounded one—so I have been told. He is dead, and the tragedy is a recent one. The question is, did he achieve results?

First fact: One of my neighbors bought some seed of him. It seemed to be mixed with a great deal of dust and debris. The first season after seeding he was utterly disappointed: there was no sign of the plant. The following year, to his surprise and gratification, it came abundantly, and has since furnished excellent grazing on what, he tells me, is exceedingly poor land, which would produce no other growth but broom-sedge, and which was selected for the experiment for this reason. He thinks that one of Mr. Mott's claims for this grass (that no land was too poor for it) has been realized. I conclude it is a good grass for poor land.

Second fact: My neighbor (Mr. R. Barton Haxall) purchased of Mr. Mott, about four or five years ago, a bushel of the dirt and debris in which the seed was mixed. He supposes that if it could have been culled and washed, there would have been, perhaps, about a quart of pure seed. He sowed the bushel as received on an acre of land, in one of the fields of his beautiful and fertile farm, Rockland, in the county of Orange. Last fall I visited him, and he seemed much interested in showing me his *Lespedeza striata*, speaking in what seemed to me strong terms about it. We went to the field. On and adjacent to the acre sowed I saw a mat of this grass, surpassing in close, dense growth almost anything in the way of small vegetation that I ever saw. Not only so, but for 100 or 200 yards around it, at least in the direction I went, it had taken almost exclusive possession, battling its way in spite of the other grasses, and its pickets

and scouts were still further away; not only so, but in a distant part of another field—perhaps half a mile away—(whither we went to see his recently imported Cotswold sheep) I found spots where it had formed a mat and was evidently preparing to establish itself against all comers. One of Mr. Mott's recommendations of it was that, once seeded, it propagated itself illimitably and could not be eradicated. Like Mickey Free's father in purgatory—foot and shoulder through the door, no power could keep him from going further. We found the colts clinging luxuriously to this grass, where it was originally sown, and Mr. Haxall informed me that it was their favorite grazing ground—a partiality shared with them by all the other stock. I conclude that in our neighborhood it is probably a good grass for any land and for any stock.

Having stated my facts, I add that one of the claims of its patron was (so I learn) that it would root out noxious plants, tolerating no rival; that it would even dispossess broom-sedge. *If so*, who would not want it for this reason alone? The future must decide about this, and must also decide what, if any, are its bad points: whether it will interfere with crops of better things, either grass or cereals, &c., &c. I take it for granted it has some bad points; otherwise it would be the most perfect of created things, which is hardly to be supposed. It is only a summer grass, being killed down by a hard frost entirely, but re-appearing in the spring more vigorously than ever. It is for this reason scarcely to be expected that it will rival in general usefulness the hardier grasses; but if it fulfils its present promise, it may prove a useful auxiliary, and may be invaluable on land too poor to bring other grasses.

(*Query*: Will somebody please answer? Can you or *any one* tell what *will* kill broom-sedge—if *Lespedeza striata* will not? If we let our lands rest in grass a few years, in the hope of getting them permanently in sod, this rude pest intrudes and ruins the field. In former times it was said to be a mark of poor land; but now it invades rich bottoms even more readily than poor uplands. If any "Jack the Giant Killer" can slay this monster, or tell us how to do it, he will earn the gratitude of "the million.")

To bid farewell to *Lespedeza*, and to close: My neighbor first above referred to learns from an intelligent Englishman that a very similar grass is much esteemed in some of the sheep-grazing districts of England. Some think that it is similar to, if not identical with, the Lucerne, so little known to practical farmers in the South.

But I am running into opinions, contrary to my promise. The facts above given may possibly be useful, and some one else will probably be able to interpret them better than I have done.

Madison Co., Va.

JOHN M. PATTON.

[For the Southern Planter and Farmer.]

HOW TO SECURE A STAND OF CLOVER.

As the season for sowing clover seed is near at hand, with your permission, I will give my experience through your columns. Hav-

ing failed several years in securing a good stand of grass, I concluded to try the experiment of harrowing in the seed. I am happy to say it is no longer an experiment with me. My plan is to sow my clover seed when the ground is in good order (not wet); first of April is soon enough; run a harrow over it with the teeth sloping backwards; cross harrow it immediately, and if the work is done properly, you are sure of a good stand of grass. With the right kind of a harrow, there need be no fear of pulling out the wheat, but will find it pay to harrow wheat even where no grass seed is sown. For several years I would harrow one field and leave one. The grass looked about as well on one as the other, until the hot sun came, then on the field that was not harrowed, the clover disappeared (having no depth of root), whilst the harrowed field was covered with a magnificent stand of grass. I have never seen any one fail to get a good stand of grass where the seed was well harrowed. One harrowing is not sufficient. Experience will prove that three harrowings is better than two, but I have succeeded in two, by weighting down the harrow when there was hard crust on the surface. Brother farmers, try the experiment this spring, and report through the *Planter and Farmer*.

Woodstock, Va.

J. W. DANNER.

Stock Department.

IMPROVED BREEDS OF HOGS, AND THEIR VALUE.

This subject has already been ably presented in two recent numbers of this journal, and the writer only proposes to contribute his mite toward that thorough understanding which is yet a desideratum among Virginia farmers. There are still many who believe in none other than a "corn-house" breed. This opinion is not utterly unfounded. The hog is, of all animals, the easiest to improve by high keeping, and judicious selection through three or four generations. A "corn-house" breed in this sense may be a good one—certainly hardy and thrifty, and probably of fair size and form, and easy to fatten. There is another reason for this opinion. In breeding horses, we have, or ought to have before us, a standard of quality adapted in every instance to some special purpose—heavy or light draft, the saddle, or the farm. So as to cattle and sheep; we breed for beef or milk, mutton or wool. But in the case of the hog, the sole object is the most flesh with least food. At least nine farmers out of ten so regard it. Hence, while improved cattle or horses indiscriminately crossed would produce nondescripts, men can and do "go it blind" in crossing almost all improved varieties of the hog, and the result is still an improved hog, though of nameless breed, and hence classed as "corn-house." Now, I will proceed to give two experiments which will prove the very great superiority in money value of the best to inferior breeds.

About 1863, Gen. John H. Cocke presented me a pair of pigs, one-half Irish Grazier, one-fourth Woburn, and the other fourth not remembered—probably Berkshire.

The result of these crosses was a hog almost the counterpart of our present Poland Chinas, and by far the best ever known in this section.

My old stock of hogs was fully up to the average; I kept a pair of the best of them. Each sow gave birth to the same number of pigs—six—on the same day. They were kept together all their lives, killed at fourteen months old, and the improved stock averaged two hundred and forty pounds, the native two hundred. By actual experiment I find that the latter consumed as much at a feed as the former.

Again, in the course of time, I was forced by the theft of a fine boar, to introduce another cross. My neighbor had some beautiful Chesters, and I secured six fine half Chesters. The year before I fattened six of my old stock, and they required one bushel of corn in the year at each meal. The Chesters received the same, would not fatten; they had it raised one-third, and then did well. Both lots were treated alike in other respects, killed about the same age, and weighed the same. Difference in cost of keeping against Chesters thirty-three per cent. Other neighbors have had the like experience; and now nobody wants a Chester hog. The cross is well enough if you can get rid of the white color.

I can endorse the Essex as the model, but we want more hog; Poland China is better, a cross may be best. By the way, can you not give us the history and pedigree of the Poland China? And if you should quote anybody who effects the silly, cockney "*pig*," take the same liberty John M. Daniel used to take with his final k's; vindicate common sense and mother-tongue; give us the vernacular hog, however coarse, and leave the pigs to the pigs.

By the way, if hogs are pigs, what expression shall we find when we mean "sure enough little pigs?"

For the benefit of those who adopt the new nomenclature, I will say, a man has been found equal to the occasion. In an old number of the *American Farmer*, "Dr. Richter-Sandir, veterinarian," caressingly refers to the little innocents as "sow-babies." Give us, then, plain hog and pig—or refined "pig" and "sow-baby," and then be we cannibals all.

T. P. L.

[For the Southern Planter and Farmer.]

PORK RAISING IN THE SOUTH.

There are few questions agitating the public mind in the Southern States that are of more vital importance to the masses than the meat question. There are tens of thousands to-day utterly at a loss to know how and where they will be able to procure supplies of bacon the present year (without which they can't control labor enough to accomplish much). The cotton crop has been sold for a nominal price, and the proceeds applied to last year's account, and, in many

instances, with a large balance on the debtor side of the ledger hanging over them to commence with. The picture is certainly a dark one—one that casts a gloom over all our prospects for the next twelve months; but gloomy as it is, we must face the music and experience all the care, anxiety and trouble resulting from past indolence, neglect, bad management and misfortune. To the first three named causes, many of the evils the Southern people complain of may be traced. I know it is very difficult to raise hogs in some sections (owing to Cuffy's fondness for pork), but it is not impossible if managed properly.

There is no place on the habitable globe that is better adapted to stock raising than our Sunny South; am not sure if our fertile soil and genial climate have not been a positive disadvantage to us; there is such a thing as having too many advantages in climate and soil; it produces supineness and effeminacy. Rigorous climates necessarily stimulate thought and enterprise; hence, as a rule, you will find many industries managed more successfully under adverse circumstances than otherwise. You will observe that in tropical and semi-tropical climates man can almost live without effort, mental or physical, and the consequence is, in process of time, you will find every branch of industry declining (and this is our condition now to a considerable extent), unless there are heavy importations from abroad of a class who have been trained by necessity to mental and physical effort. While this is generally true, it is not necessarily so; we can have it otherwise if we will it to be so. Then, brother farmers, if you will but use the powers you possess, properly, in developing the country in which our lot has been cast, (as those who inhabit higher latitudes or climes less favorable, are compelled to do), our country will yet bloom like the rose.

Let a portion of our time and farms be devoted to stock raising, particularly hogs, and I feel sure that hard times will be far removed from many who exert themselves in the right direction.

Hogs are more easily raised than any stock I have ever kept—will bring quicker returns, and increase more rapidly than any other stock—will sell at any age. I will admit that it is not profitable to raise hogs entirely on high-priced corn, but if we farm judiciously we will not do that. Sow small grain, peas, clover and grass; utilize these properly, and very little care is required to make an ample supply of bacon, beef and mutton for family and laborers.

I raised last year about one thousand pounds of pork to the hand; don't think it cost over three or three and a half cents; the market price was about eight and a half to nine cents. This gives a net profit of over one hundred per cent.

Can those who plant cotton (almost exclusively) feed hands and mules on high-priced bacon and corn, and make a better profit on cotton or tobacco than that? I don't wish to be understood as advocating the abandonment of any of our great Southern staples, namely: cotton, tobacco and rice, but I do earnestly advocate the production of all articles of prime necessity at home. W.

Union Co., S. C.

INTERBREEDING OF SHORTHORNS.

Judge JONES, at the recent Shorthorn Convention, held at Toronto, Canada, made the following observations, in the matter of in-and-in-breeding :

"While it must be admitted that mere speculative scientists had heretofore accomplished very little in aid of cattle breeding, it was nevertheless true that considerable progress had been made in establishing systematic methods founded upon the careful observation of facts and intelligently conducted experiments. All intelligent efforts for the improvement of domestic animals have been founded upon two principles: (1) The selection from the best animal to breed from; and (2) proper feeding and care for the development of high excellence. Those principles were acted upon in a rude way at the very beginning of the history of races and breeds; and their observance was equally essential in the preservation of the valuable characteristics of the most perfectly developed races of the present day. In the early history of the Shorthorn race there was a good deal of in-and-in breeding; a practice that seemed justifiable because of the limited number of cattle of approved excellence to breed from, and because the tendency was, within certain limits, to improve the symmetry, refine the bony and muscular structure, and increase early maturity. The great multitude of the race now disseminated throughout the world were, therefore, all descended from a very few animals.

"The fact that close interbreeding tends to refine the extremities, and to impart elegance and style to the general appearance of the animal would explain why men of taste adhere to the practice, while we of a more practical turn of mind would have detected a diminution in useful qualities. In the case of in-bred animals commanding high prices, it could not be expected that the owners would change their style of breeding and involve pecuniary loss, and so long as those line-bred animals were in demand at higher prices than others, so long would they be bred. There was now no necessity for resorting to the refining system to give style and beauty of form, for, as observed by Prof. Low, the external form has already been brought to all the perfection which art seems capable of communicating; and now those other properties remain to be attended to, without which no further refinement in breeding will avail for the purpose of profit to individuals and benefit to the country.

"Gentlemen in the in-and-in practice seemed to be aware of its influence in impairing useful qualities, as was shown by the fact that they were constantly seeking bulls as remotely connected as possible with their cows. What was at this day the essential matter to be attended to in their practice? Had they not carried refinement far enough, and had not the external form been brought to all the perfection which art seemed capable of communicating? The form of the model Shorthorn would seem to admit of very little variety in the way of types, unless they attempted something that was not essential to useful and profitable excellence. They should bring up

the average to the maximum of excellence and keep it there. He urged that cattle should be judged by a scale of points, which might be subdivided to suit the fancy. He objected to incestuous breeding, especially where it was practiced merely for the purpose of continuing in the line, because it tended to impair constitution, vigor and the growing and feeding properties, although it produced high refinement of form."

[For the Southern Planter and Farmer.]

THE BEST WAY TO FEED OATS.

We all know that feeding oats in the sheaf is the most wasteful way they can be fed; and we also know that when they are threshed and cleaned and fed to horses, that a considerable quantity of the grain passes through them whole, without affording them any nourishment whatever. Now, to prevent these losses, I thresh my oats and feed them in the chaff; and I have yet to see a whole grain of oats in the manure when so fed. I know of no one else who feeds this way; but, with an experience of two years, I can fully recommend it as the best way I know of. These are the advantages of this method: 1. It is *impossible* for the horse to swallow the grain when mixed with the dry chaff without thoroughly masticating it, and wetting it with saliva, which greatly aids the digestion of the food. 2. I think there will be one-fourth more nourishment obtained from the grain. 3. There will be no oats dropped in the wheat fields to mix with the grain sowed, thereby vexing and bringing loss to the farmer, as I have known, from this cause.

I am glad to see a growing disposition among farmers to *produce* more per acre; but if I am correct in believing that I gain one-fourth by feeding this way, it is far better than *producing* one-fourth more; because there is nothing expended—no extra handling in reaping or threshing.

I thresh with a two-horse railway power and small threshbox with shaker, as the cheapest, all things considered. The oats can be hauled loose in a wagon-bed to the stable, or put up in rail pens at the stack; no sacks required.

This matter of economy in feeding is very important; on it may depend our entire profits, if we feed (as we should) the most we produce. The old saying that one improvident person can destroy what two can make will apply to this, as well as to the kitchen.

Phelps county, Mo.

C. H. GILL.

NOTE BY THE EDITOR.—In the March number of the *Planter*, we ventured to submit our notions in the matter of the State Agricultural Society. One of the points indicating its general scope was as follows: "It should mature plans of experiment (to be undertaken by the members of the sub-societies,) in connection with the various crops on which our people depend for income." The range of these experiments will cover, of course, stock feeding, as well as tillage and manures (both domestic and chemical).

Germany appears to be, above all other countries, the land of *system*. This system, it is true, has been pressed so far as to turn her people, politically, into little more than human machines, thus enabling its ruling power to erect in Christendom, (in spite of CASTELAR'S "growth of republicanism in Europe,") another despotism; still, in many things, we may follow with advantage her example. The government has arranged that the resources of the country shall be developed and utilized with as few mistakes as possible. In the direction of agriculture, and the matters intimately related to it, no aid that science could render has been left untried. In every portion of the Empire, experimental stations have been established, where men bred to the study of soils, plants, tillage, manures and animal nutrition, incessantly labor. The results are, from time to time, given to the world.

As kindred to the observation of our correspondent, we submit an extract from a late review of the experiments undertaken in Germany, in the matter of the nutrition of domestic animals:

"It has been found that a certain portion of the woody fibre of plant food is digestible and nutritious, from forty to nearly seventy per cent. of the fibre in hay, clover, and straw being digested by cattle and sheep, and a smaller proportion by horses. This crude fibre consists of cellulose (which has the same composition as starch) and other materials richer in carbon. It is believed that the cellulose constitutes the digestible part of the fibre. This view finds a remarkable confirmation in the experiments referred to, in which the composition of the digested portion of the fibre coincided almost exactly with that of cellulose. Results identical with this have been found in numerous other experiments at Weende and elsewhere.

"It is a familiar fact that all ordinary fodder materials consist of water, mineral matters, and two classes of organic substances—the albuminoids (gluten, fibrin, etc.), which contain nitrogen, and the carbo-hydrates (sugar, starch, cellulose, etc.) and fats which contain no nitrogen. One of the important principles brought out by the German experiments is that unless foods, especially mixed rations, contain a sufficient proportion of albuminoids, they are not economically digested. When carbo-hydrates, as sugar or starch, or materials rich in these, as potatoes, are fed in considerable quantities with hay and straw, less of the latter is digested than when they are fed alone. On the other hand, nitrogenous substances, as gluten, and likewise foods rich in albuminoids, as oil-cake, cottonseed meal, beans, peas, and cran, when fed even in considerable quantities with hay and straw, do not decrease the digestion. Thus, in the experiments of Schulze and Marcker, large quantities of gluten of wheat, and of bean meal as well, caused no depression in the digestion of hay or aftermath, while the addition of starch and sugar to the ration decreased the digestion of the whole organic substance of the former by nine per cent., that of the albuminoids by fifteen per cent., and that of the crude fibre by eight per cent.

"Quite in accordance with the above are the results of late experiments by Dr Stohmann, director of the station at Leipsic, on lupines (seeds) as food for sheep. The lupines proved almost completely digestible, and (being highly nitrogenous) exerted a very favorable influence upon the digestion of the hay. From twenty to thirty-nine per cent. more of the crude fibre was digested from the hay fed with lupines than from the same hay when fed alone. To the bitter taste, which renders lupines unpalatable to cattle, sheep do not seem to object. As a rich food for fattening sheep, Dr. Stohmann says that lupines rightly used can hardly be too warmly recommended.

"The already well-established fact that forage crops grown on well-manured soil are richer in albuminoids, which constitute the most valuable portion of the food, than those grown with scantier fertilizing, is well illustrated in some late experiments by Wagner. On a poor sandy soil in Westphalia, which was rendered fertile by irrigation, the effect of manuring grass with superphosphates was tested. Not only was a much greater yield obtained, but the manured grass contained a much larger percentage of albuminoids. The albuminoids were also more soluble in water, and hence probably more digestible. The manured grass was likewise much richer in phosphoric acid.

"This experiment, with those previously mentioned, sets forth a general principle which, though little understood, is of vast consequence to the agriculture of the United States. Taken as a whole, our fodder materials have not a sufficient amount of nitrogen to secure their most economical utilization. This evil may be corrected, first, by cultivating nitrogenous crops, as clover, lucerne, beans, peas, and lupines; second, by making more use of nitrogenous waste products, as oil-cake, cotton-seed meal, malt sprouts, bran, etc.; third, and most especially, by heavier manuring, which brings crops not only larger, but richer in nitrogen."

VISIT TO BELMONT AND ELLERSLIE STOCK FARMS.

Having occasion to go to Charlottesville lately, we paid our respects to Major Ficklin, at his elegant farm in the suburbs of that town. This farm contains one thousand three hundred acres, the greater part of which is covered by an excellent sod. The farm is largely devoted to the breeding and raising of fine stock—Shorthorn cattle, Thoroughbred and Percheron horses, and *Chester* and Berkshire hogs; of all of these he has splendid specimens of both sexes and almost any age; he also has a good many splendid trotting horses and mares of the Black Hawk strain.

Major Ficklin's reputation as a successful breeder is so well known as scarcely to require notice at our hands; he has now a very large stock on hand, about ninety head of horses and large numbers of other stock. His stock is in fine condition, the credit of which justly belongs to his son, who, in his father's continued absence, has had control and management of everything. It is really refreshing to find a son so well fitted to fill his father's place; and we would rejoice if there were more of the young men of our State so thoroughly enterprising as this one. Mr. Ficklin, Jr., has promised to give us an occasional article on stock raising.

From Major Ficklin's we rode over to Captain R. J. Hancock's, where we had the pleasure of looking at *Scathelock*, one of the finest thoroughbred stallions in the country. He was bred by Major Doswell, is by Imp Eclipse, dam Fanny Washington; as a three-year-old, he made a mile in the remarkable time of 1:43, at Saratoga. Captain Hancock is breeding some splendid mares to this horse, and already has some of his colts that give great promise; he also has some fine Shorthorns, and as fine Berkshires as we have ever seen.

He has just completed a new barn at a cost of about \$5,000. It is fifty by eighty feet, three stories high; the first or basement story has a feed room the whole length and twenty large stalls, ten on each side for horses, (no cattle allowed in the barn), which are fastened by bars extending from post to post instead of halters. The next story is his granary—four corn houses (one in each corner) in the granary, and are constructed so you can pass entirely around them, with false or slatted floors which lets in the air from below as well as at the sides and ends. The third story is intended for grain in rough state, the floor of which is on a level with the bank, and into which are driven wagons, &c.; hay, sheaf wheat, sheaf oats, corn in the

shuck, &c., are deposited here; there is a trap door in this floor for dropping grain of all kinds into the granary below, and in the centre of this floor is a hay shoot (covered with another trap door) which passes entirely through the granary into centre of feed room in basement. The ventilation consists of four doors, two at each end of the basement with lattice above stonework, giving an abundance of light and air; ten windows and a door in the granary; six windows, three in each end of the upper story, two large doors twelve by twelve, a small door between them, and a door six by twelve at opposite side; cupola eight by twelve on top; heart pine weatherboards and heart pine shingles, both painted. There are thirteen hundred (four-ox-loads) of stone in the building, (*i. e.*) in the basement; the wall next to the bank, which is twenty feet high, five feet thick, and the two wings at the ends to keep the doors clean of earth, which would otherwise be crumbling and falling from the banks. The basement wall is eight feet high with four feet of lattices, making twelve feet pitch. The granary is eight feet pitch, while the upper or third story is fifteen feet high with gable ends sixteen feet high. L. R. D.

B. F. PECK, of East Bethany, N. Y., in a private letter, says: "Your statement that you have abundance of *cheap lands* and no reliable labor, suggests to my mind two great needs that are felt all through our country, East West, North and South. The first is, herds of cattle and sheep to occupy the cheap land, paying the rent in meat, and butter, and cheese, and wool; thus concentrating the labor and manure on the better lands and making them double their production. Second, (not second in importance,) we need a more thorough training of our farmers and their sons to their business; let them learn thoroughly all the details of their business, so that in every department they can not only tell their laborers how to do their work, but, by their example, show them how to do it; then let them learn to give their attention to their business as thoroughly and as systematically as men do in all other branches of business, and they will soon find their business prospering, and they will soon find their business prospering, their farms improving, and their hired labor, also, will share in the general improvement and become more useful and reliable; and what is better than all else, we shall not be so entirely dependent on the hired labor. I believe that the future has in store no greater rewards for men than are reserved for the farmers of our country, but they are to be the rewards of earnest and persistent effort; no laurels for the slothful. It is the eye and hand of the Master that make the flocks thrive and the fields wave with grain."

COL. JAMES L. STRINGFELLOW, of Culpeper, says: "I am in full sympathy with you in holding it to be the imperative duty of all to render every possible voluntary aid to the dispirited and impoverished agriculturist of the State; and, according to my views, based on a somewhat extended experience and close observation, effectual aid cannot be more certainly and immediately obtained from any practical resource than that of sheep husbandry. The farmers have now all the necessary conditions of success in this enterprise, except a proper dog law and a little more instruction from those of experience, and I do hope that these will be speedily supplied."

Poultry and Pet Stock Department.

[We shall be happy to receive from Poultry and Pet-Stock Fanciers, contributions of any facts or peculiarities they have noticed in breeding. Also, when amateurs and beginners find barriers in their way, let them write us an account of their trouble, and we will advise the remedy to the best of our ability. All questions will be cheerfully answered, in the hope that not only the one who asks, but also some other readers of the *Planter and Farmer* may derive benefit therefrom.—ED.]

OFFICE VIRGINIA AND NORTH CAROLINA
POULTRY AND PET STOCK ASSOCIATION. }
March 31, 1876.

The regular quarterly meeting of the Virginia and North Carolina Poultry and Pet Stock Association will be held at the office of the *Southern Planter and Farmer* (Main between 11th and 12th Sts.), on Tuesday, April 11th, at 12 o'clock. Every member is requested to attend, as business of importance will be brought before the meeting. Those wishing to join the Association, are requested to be present or send in their names. H. THEODORE ELLYSON,
Secretary and Treasurer.

IN answer to subscriber, who desires to know what the "Douglas Mixture" is, we would say: It consists of half a pound of sulphate of iron, and one ounce of sulphuric acid, dissolved in two gallons of water; and is to be added in the proportion of a teaspoonful to each pint of water in the fountain.

YOUNG CHICKENS are injured often seriously by being exposed to heavy dews and rains. Until they are a month or six weeks old, chickens should not be permitted to range in the wet grass in the early morning, and they should never be left out of the shelter of their coops on a stormy day. Those who have watched the lives of these tender creatures, have observed the importance of this advice, and will take care that the young birds are kept out of the wet weather.

We cannot too often or too persistently insist that great care should be taken in this respect, if you wish to keep your young chicks free from sickness. Dry quarters and good feeding will insure you fine, healthy chickens.

CLEAN UP.

As the warm weather of spring approaches, do not fail to give your poultry houses and roosting pens a thorough cleansing. In the cold winter days the droppings will freeze solid, and may remain in the pen without injury to the fowls. But as warm weather comes, they MUST be removed. After removing all filth, sweeping the walls and ceiling, and making the house as clean as possible, get an old

iron pot or kettle, fill it with live coals, set it in the poultry house, and put on the coals one pound of sulphur, close up doors, windows and ventilators, and let the sulphur burn out. This will disinfect the house and kill vermin. After this give the walls and ceiling a good thick coat of whitewash, and your poultry house will be fresh, clean and healthy. This may be done at an expense of thirty cents and a half day's labor, and it will prove time and money well spent. Chicken cholera and a dozen other diseases which prove so fatal to poultry, may, in a great measure, be prevented by keeping clean poultry quarters.

SULPHUR.

There is no remedy and assistant so easily and cheaply obtained, so harmless to the fowls, nor so satisfactory in its results as sulphur. It can be administered to the fowls by having it in a small box, so that they can help themselves, or by mixing it with their food once a week, or as often as there are indications of vermin. Penetrating as it does, to every part of the system, all parasites are quickly and surely destroyed, also, gapes are said to be prevented in chickens.

Applied externally to the fowls when on the nest, to the nest itself or mixed with the soil in the dusting box, it is equally efficacious in destroying vermin.

To be used as a purifier of buildings, it is necessary to remove the fowls, close the house, mix a little salt-petre with the sulphur in an iron vessel, and apply a match to the mixture. This should be done early in the day, and the doors and windows afterwards left wide open until evening for ventilation.

DUCKS.

Ducks, after commencing to lay, drop one egg very regularly once in twenty-four hours, in the silent night. They make nests, but are not particular about depositing all their eggs where they may be hatched, seeming to regard them as not of much consequence, laying some of them in the water, here and there. Care should be taken to pen ducks regularly every night during the time of laying. They should be fed plentifully, and during the day have free access to water.

Grange Department.

GRANGE AGENCY SYSTEM.

The reports of different State Granges show large gains to Patrons. California claims to have saved seven millions of dollars in 1875. The Master of the Kentucky State Grange reports forty millions saved in all the States. Wherever the Patrons are out of debt and have bought through the Agents of the Order the savings have

averaged twenty-five per cent., and on machinery one hundred per cent. Under the Rochdale system of co-operation still larger profits are expected; this depends entirely upon the honesty and capacity of the managers; in England success to the amount of \$25,000,000 has resulted from this system, but it is doubted if the Americans can show similar results. In England, a defaulting government officer is very rare; in the United States, it is a frequent occurrence, and nothing but great judgment in the selection of the officers will accomplish success. The officers of these co-operative societies should be bonded to prevent losses. As soon as the farmer can commence to purchase for cash, his prosperity will commence, and not till then. The credit system consumes all the profits. It has been recommended that the Granges buy one or two articles, monthly, for the whole year, so as to concentrate these purchases through the State Agents; for instance, tea and coffee, then flour, then bacon, &c. This plan would operate to great advantage if carried out, and much better than sending bills of goods in different amounts; the purchases would then be from first hands; for instance, the *highest* price for tea is given at eighty-five or ninety cents, for which consumers generally pay from \$1.50 to \$2.80 per pound at retail. The savings on other groceries would not be in the same proportion, but would be fully thirty-three per cent.

LEGAL REFORMS.

It is thought that while the attention of the Patrons is being drawn to co-operation in buying and selling, the equally important matter of looking after the election of our law-makers may be overlooked. There are great abuses of all kinds, and politicians will never remove them; and unless farmers will look to their interests more carefully, in the persons who represent them, all their economy and industry in other matters will amount to nothing. Every State has had laws of every kind, and cities particularly; the reason of this is that groggeries rule the great mass of the population. The wealth and lives of citizens of large cities are more particularly under the control of corner groceries, who pack the primary meetings, and thus force the great mass of the population to vote for the party candidate nominated by them, or not to vote at all. In many localities county elections are managed in a similar manner, and it becomes every citizen to put a stop to such a system; it can only be done by union of efforts. A few men can not accomplish any reform; it must be done by the whole body of the people, and in every State they should not leave the interests of cities, and indirectly their own interests, at the mercy of the town representatives; from such legislation nearly all the large towns have become notoriously corrupt in their city governments, which plundered the whole people for years to come. The debts of the cities are being yearly increased, and millions of dollars transferred to pockets of individuals. Many Tweeds, on a small scale, rule the destinies of cities and towns, and from no other cause but the indifference of the people; some of the old laws of Draco and Lycurgus would not be out of place in the

present age. Stealing under every name should be severely punished. Laws should be passed in every State making punishment of crime certain, and beyond control of pardon from Governor or Legislature—and added to this, restitution of property without exemption of anything; and for thieving of large amounts of money—hanging.

To accomplish these changes, the jury system has to be altered as in Texas, from the agreement of twelve men, to the decision of nine out of twelve men. In all new countries it has been found that one villain could generally get on every jury, and thus defeat the ends of justice. Under the new Texas law thieves and murderers will not escape so easily; these are two greatly needed reforms in the curriculum of courts—and one more, requiring every case to be decided upon at the *third* term of the court, would procure a revolution in legal matters. So many thousands lawyers would not be needed to *secure our property* as at present, and oysters would be much oftener obtained than the shells. To accomplish any reform, it must be commenced by the people, and the sooner the better. The man who shuns his duty at all elections ought not to be allowed to vote.

GRANGER.

GRANGE MATTERS.

The best Grange paper, *The Weekly World; sine qua non*.

In Maine thirty-four persons joined a Grange at one time.

In Michigan a Grange was organized and soon added one hundred members a year ago, and has continued prospering ever since. Another, organized with forty members, now numbers one hundred and twenty-five persons.

In Minnesota, Granges are prosperous, but now and then "some few droning along after the old fashion, going in debt at the stores, losing from fifteen to fifty per cent., while all others are prospering." One Grange, commencing with one hundred dollars, has purchased eleven hundred dollars worth of supplies.

"Farmers' Hope Grange has died of strangulation, from an overdose of lawyers, merchants and politicians, taken inwardly."

In New Jersey, Cohansey Grange has passed resolutions regarding the acquittal of Landis, the proprietor of Vineland and the murderer of Carruth, editor of the village paper and Master of the Grange:

1. That a wealthy assassin is justified in murder.
2. That the arts of lawyers in packing juries with men of "barely passable intelligence," is against the life of society.
3. That we "detest the weakness displayed by said jury in being overcome by bribes, threats, hunger, or whatever cause."
4. That we protest against "invisible insanity," so-called, and that we call upon all men "to procure at once the confinement of all persons liable to sudden outbursts of insanity, whether insane at present or not."

In New Hampshire one Grange, organized October, 1875, has purchased one thousand dollars in supplies, and saved thirty-three

per cent. A large number of Granges have reported similar savings; and stumbling-block malcontents had better follow these examples, and they can soon report money in their pockets.

In Ohio the Master of the State Grange reported but one case of appeal from a Grange arbitration to a legal settlement since the organization of the State Grange, and that the business department had been satisfactorily sustained.

It adopted these resolutions:

"That we, as Patrons and citizens, will hold our representatives individually responsible for all prodigal expenditures of our moneys; also for some clear and concise law that will equalize values throughout the State of Ohio, compelling each to bear its just burden of taxation, not excepting church or railroad property."

The Miami Grange adopted the following sensible resolutions:

1. Universal suffrage and universal eligibility in the Granges.
2. The abolition of all privileged classes.
3. A reduction of the National and State Grange fees to the lowest amount to pay legitimate expenses.

In Pennsylvania, petition of Granges to the Legislature to reduce salaries and fees to rates before the late civil war.

In Missouri three Granges added seventy-nine members at *one* meeting; three organized with one hundred and nine.

The California State Grange reports seven million dollars by the organization of the Grangers in that State.

Fifteen Pomona Granges were organized in Iowa in 1875; and every Grange in these districts reported large additions.

Brother O. H. Kelley, Secretary of the National Grange, writes: "There appears to be new animation in the Order; one hundred and fifty to two hundred new Granges are organized each month, and large additions to the old Granges."

A by-law of many Subordinate Granges drops all members not paying dues every *three* months, and of other Granges the time is *six* months, and a very good one is this: "A suspended or expelled member, or one dropped from the rolls, shall not be re-admitted to the Grange, except by a vote of three-fourths of the members."

Oak Hill Grange, Pennsylvania, has a new departure—all the Sisters dress alike, in seven and a half cent calico, of the same material, color and pattern; the poor and the rich on the same footing.

Master Jones has ruled all elections for officers valid, even if not elected on the day appointed.

Master of Texas Grange has issued an address to the Grangers to plant less cotton—the best advice yet given, and if heeded will repay handsomely.

Grange 478, Texas, has taxed its members two dollars for males, and fifty cents for females, to give premiums to the best raisers of different kinds of produce and of live stock.

Watervill Grange, Vermont, brought corn from the West, and reduced the price from one dollar and twenty-five cents to eighty-five cents per bushel.

Editorial—Farm and Garden.

April was named by the Romans from *Aprilis*, of *Aperio*, to open, because in this month the buds and blossoms open, and the frost retires from the earth.

CORN PLANTING.—Is the great work for this month. We are in favor of early planting, and have observed that the farmer who plants early generally works his corn well, for he has more time to do so, and makes good crops if the season is tolerably propitious.

It is presumed that the land for corn is well broken up with two-horse plow, (unless the soil is very thin) and if followed by the subsoil plough, so much the better, unless the subsoil is wet. If it is, then it should be first well drained with till, or otherwise. Then we would plant as near the 10th April as practicable in ordinary seasons. The distance to plant, depends on the strength of the land. As a general rule we are in favor of thick planting, believing, one season with another, the farmer will make more than by thin planting. After the corn gets up, it shades the land and prevents the ground drying up so rapidly after rains. We have been rather surprised to see how well two stalks in the hill bear, and we think the two stalks on tolerably good land always make more corn than the single stalk, and then there is the additional fodder and shucks to be taken into consideration. Still, unless the land is very strong, we would not leave more than every other hill with two stalks, for fear of too much drain on the land.

Before the planting the land should be well prepared, dragged and cross-dragged, the last dragging being immediately before the planting of the corn. This will not only give the corn a better start, and come up better, but it will save labor in the end. The after cultivation must be frequent and thorough, until the "*laying by*." There is not much of our land which is strong enough to bear a good crop of weeds and a good crop of corn. We prefer the old mould-board system of cultivation, taking all things into consideration. Farmers differ as to the kind of corn to plant. We tried last year a "*prolific*" variety of corn, which had been carefully selected and improved for years by a judicious farmer, and we did not think we made as much as we should have done from the old "*gourd seed*" variety, which we had been planting for many years. The land was very good, the corn planted in good time and well worked; still the shooting was insufficient, and there were many nubbins and defective ears. Perhaps this may have been due to a short, dry spell in this vicinity, which came just as the corn was shooting, and possibly in a measure, to abandoning the mould-board system, and trying in its stead the double-wing coalter and the cultivator. In our latitude, the large variety of corn has time enough to grow and fully mature, and we are disposed to believe it more hardy, and more productive altogether. The "*gourd seed*" variety certainly has few small, defective or rotten ears in our experience. A very practical, experienced farmer, in this vicinity, tried both the "*prolific*" and the "*gourd seed*," and gave the preference to the latter.

MANURES FOR CORN are, preferably, horse and hog manure. If the manure is not well rotted, it should be used broadcast. If well rotted, it may be used in the hill, and if in the hill, apply it over the corn after it is planted. It will serve as a mulch, and the cut worm is less apt to destroy the corn than if applied to the grain and then covered. To prevent the ravages of the cut worm, a tablespoonful of salt scattered over the hill immediately after planting, is almost a sure

preventive. Or, from six to eight bushels per acre may be sown broadcast over the land, as a preventive of cut-worm and as a useful fertilizer. If procurable, a mixture of two parts hen manure, one part salt, one part gypsum, and two parts wood ashes, thoroughly prepared by frequent turning and mixing, applying a good handful to each hill at time of planting, first putting on some dirt, will be found very effectual.

OATS.—Should have been seeded last fall, or in February or first of March. It is too late to make a good crop of oats, unless with very favorable season; and our farmers must realize that they should seed *winter oats*, if possible, in the fall, in September or October, or even in the corn, as was the custom to do in old times with wheat and rye, in the month of August. Sow, if possible, not later than the last of September. If not sown in the fall, then they should be seeded from 15th February to March 1st. If any of our readers have to sow now, let them not delay a day and sow winter oats, even at this time, in preference to spring oats. They are more hardy, will branch more and produce a heavier crop than the latter. We sowed some winter oats this year the 10th and 11th of February, because we could not sow them in the fall, and they have come up well. They were dragged in well—dragged and cross-dragged. Do not sow less in the spring than $1\frac{1}{2}$ bushels.

VEGETABLES.—This is the month for putting in the ground many vegetables, particularly squash, cucumber and tomato, (by transplanting from hot beds or boxes,) beets if not planted in March.

SALSIFY and Irish potatoes for early use, may still be planted, and garden peas for late crop. This is the month, too, for planting melons, one bushel of well rotted manure having been put in holes during the fall and winter. The "Joe Johnson" seems the main reliance for this latitude, the old "Jackson," which is the best melon we have ever had, having become so mixed and crossed, as to have lost its identity.

ASPARAGUS BEDS must be put in order the first of this month, or as soon as the first shoots appear above the ground; which this year indeed was in March. The beds should have been well manured during the fall or winter, and the manure partially covered with the plow. After the beds have been thrown up with the plow and pulled up with hoes, and then raked over with the hand-rake, apply salt over the beds at the rate of 30 bushels, at least, to the acre; particularly if the ground has not had repeated saltings before.

FRUIT TREES, Grapes, and Strawberries and Raspberries, may still be set out, though we prefer decidedly to set the first of these in the fall, or last of February or first of March, as there is danger now of some dying, if we have a dry spring or summer. The three last will do well now. We have indicated which kinds of these fruits are best for this latitude, in our March No.

TOBACCO.—The land should be thoroughly prepared for this crop now, and stable manure and other fertilizers gotten in place for this important crop. As we have said before, we are not acquainted with the details of the management of tobacco, having never raised the "weed," though we are preparing for a small crop this year on some land we found necessary to clear up. In previous numbers of this journal will be found many excellent articles on its planting and management..

Manures of all kinds should be carted out and applied to land for corn, tobacco

and grasses. If the grass land is hide-bound, run together and hard, run over it a sharp, heavy drag. If stable manure cannot be had before dragging, apply ten bushels wood ashes, two bushels salt, and two bushels plaster, per acre.

ASPARAGUS—"GRAPE GROWING IN VIRGINIA." *Mr Editor*,—In my article on "asparagus" in your March number, I omitted to say that two or three inches of fine stable manure should be placed over the dirt with which the roots had been covered as soon as the dirt is applied.

In Mr Ott's articles on "Grapes" for Virginia, he says that only four varieties, viz: Catawba, Herbemont, Clinton, and Norton, can be relied upon for wines. This matter appears to me very insufficiently tested. Dr. McCarthy, near Richmond, who has had much experience in wine making, expresses the opinion that *Concord* is the best wine grape for Virginia; and we have tasted wine made by him of this grape, which was a very good imitation of Sherry. The two wines were tested together by several gentlemen, good judges; the Sherry being a direct importation by a friend of Dr. McCarthy. This wine certainly bore no resemblance to Claret, and proved that a good wine could be made of Concord. Husmann says "it makes a fine, light red wine."

Mr. Buck considers "*Ives*" one of the best wine grapes, and several years back his Ives wine took the premium at the Virginia State Fair. The wine made of the Norton that we have seen, was more like Claret than Port, or the heavy wines of the south of Europe. We made some wine from this grape some years ago, which was pronounced by a connoisseur as a good imitation of Burgundy, which, we believe, is made from the same grape, or one very similar to the Claret grape.

Mr. Ott speaks of the Piedmont region being the "*habitat*" of the grapes of Virginia. Now, if he had seen the large vines growing in the forests of Eastern Virginia, and more particularly the enormous "*Muscadines*" of Tidewater Virginia he would have come to the conclusion that Lower Virginia, too, was the *habitat* of the grape.

In looking over Mr. Ott's article again, I find he has done, as I think, still further injustice to the Concord, which he says "is only valuable as a table fruit, on account of the size of the bunches and berries, and its fine appearance." Now I know many persons who prefer it to any other American grape in ordinary cultivation; I know the fact that it sells better in the Richmond market than any American grape with which it comes in contact; besides, it is much more productive than any other grape, and if it is a good wine grape, as there is reason to believe it is, it is *the* grape for Virginia—the grape for the million.

Mr. Ott says no grape of Northern origin is fit for wine making in Virginia.

We have spoken of the Ives and Concord. Husmann says the Clinton comes from Western New York.

Mr. Ott says the Catawba originated in North Carolina; Downing says it was brought by Major Adlum, of Georgetown, D. C., from *Maryland*, and Husmann says it was introduced by Major Adlum.

The Cynthiana, not mentioned by Mr. Ott, is generally believed to make a wine equal in every respect to the Norton, and indeed the grape is very similar to the Norton; I do not know, however, whether it has been tested in Virginia.

I do not make these observations on Mr. Ott's article in any captious spirit; but being interested in grape growing, and desiring the truth on this subject for the benefit of the people of Virginia, I have been induced to point out some mistakes which, I think, he has made.

Henrico.

T. H. POLLARD.

Editorial.—General.

MAURY'S VINDICATION.

In times as anxious as the present, we cannot perform a better service to our people than surrender a portion of our space to a paper like this. It will accordingly appear in our May number in full. It was the last work on earth of its lamented author, COMMODORE MAURY, and was given by him the title of "*A Vindication of Virginia and the South.*" And we trust that every Southern mother will engrave its words, with a point of steel, on the remembrance of her sons.

Some time ago, we observed this extraordinary sentiment in a Southern newspaper: "The fact that the charges against the North are true only the more exasperates the Northern people, and embitters them against us." That is, we must quietly "grin and bear it." We are not slaves yet; and as far as this journal is concerned, it expects to continue to keep before the young people of the South the past of this country. Maury's Vindication is an indictment against the North, every count in which is established by unimpeachable testimony; and it shows, on the part of that section, a career of infamy that finds a perfectly natural fruitage in the crime with which GRANT'S government reeks from head to foot. BELKNAP is only a ripe apple, and so has fallen. He certainly should have a place at the "Centennial." New England has ruled that section, and ruled it with a rod of iron, and *they* have ever been hucksters in religion, dealers in patriotic *rouge*, and swindlers in trade. The same turpitude that made it necessary for WASHINGTON to break those Yankee Colonels, who in the extreme agony of the Revolution, were robbing the public fisc through fraudulent pay-rolls, *has not died out*; and until the Middle and Western States throw off their vassalage to Plymouth Rock, "the Union" is a wretched farce.

Time is a friend to right; and the world now is beginning to understand that *all the respectability this country ever had* was when its affairs were in the custody of Southern hands. Slavery may be an *awful* thing; but as a tree is judged by its fruit, the following, from a Northern Review, fails to show that our folks were the desperadoes and blackguards we were claimed to be in every book and publication issued in the North prior to the war: "The rask and file of the Confederate armies have given proof that the men of the South must be classed, in all the elements of complete character, with the best that the world has ever seen. Crime was so infrequent that a single morning of the term of a rural Court, before the war, nearly always sufficed to dispose of every indictment; there was little want or pauperism; virtue was everywhere the rule in private life, and there was seldom even the suspicion of corruption in government or the administration of justice. The history of this people since the war shows that they are possessed of the best Anglo-Saxon mettle."

As a sort of negative comfort, it is a pleasure to know that the peoples of Europe are very much better satisfied with their governments than they were some years ago. The example of America is a perfect weapon in the hands of the strong governments elsewhere in the world; for though a child, in respect of the life of a people, it is a thousand years old in corruption and misgovernment.

DR. DABNEY ON THE NEGRO IN THE PUBLIC SCHOOLS.

We gladly give space in this number of the *Planter* to Dr. DABNEY's paper, as lengthy as it is, on this subject. It is an excellent supplement to the labor of "Civis," and our people cannot hear too much about this most vital matter. Through Puritanical sophistry we have been drawn into a whirlpool that bids fair to swallow up the "name and fame" of this Commonwealth. If this free school business did not involve the awful future depicted by the Doctor, nothing could be more discreditable to the State than to undertake the erection of a huge charity when she needs every dollar she can command to pay her just debts. It will not palliate the case, in the least, to start the demagogue cry of "bondholders." We hold no Virginia bonds, and don't know that we ever will; but if the State got value received for the bonds she gave—and no one says she didn't—it is her bounden duty to pay them, no matter who holds them. That is a perfectly plain proposition: one from which there is no escape, if we would preserve our honor; and without honor the sooner we become food for worms the better.

A WORD TO OUR FRIENDS GENERALLY.

As subscriptions to the *Planter* are coming in freely from all parts of the South, it would be a source of profit to the readers of our journal if we had articles relating to *all* the interests peculiar to our section. We request, therefore, that our friends will not hesitate to put their thoughts in shape, and send us the results as compactly stated as possible. We want our journal to be in fact what it is in name—the exponent of the Southern planter and farmer.

REMORSE AT ITS WORK.

WENDELL PHILLIPS is thus reported: "Workingmen spend more thousands a year for liquor than the rich classes with wider scope of amusement. To Englishmen this is not of much importance, for it is there only the rotting out of the lower classes. A row of bayonets stand between the lower and upper classes of society, and the Englishman does not care, nor does he pity him, unless he has a very Christian conscience. But in America it is different. Here you have a political telegraph: a corrupt mass at one end and Tweed at the other. You open the papers, and see what rings and corruption there is in Congress. There is no Congress; it abdicated long ago, and the bank ring, the whiskey ring, and the Credit Mobilier make the laws. But you crush one ring, and think you have done something; but you might just as well take a fevered man and scrape his tongue. The ground tier is corrupt; the rottenness is at the bottom."

And no man, past or present, in this country, has done as much to make the "ground tier" corrupt as WENDELL PHILLIPS. He has led the van in every assault made upon the bulwarks of rational conservatism, and now they lie in hopeless ruins. Suffrage has been reduced to the lowest depths of degradation, and our courts of justice, the last refuge of a free people, are subject to the control, it may be, of a beastly negro. Let the murderer of his people's liberties howl his fill; he cannot undo his work, though it returns to torment him. We in the South will not forget him, nor his race; and we will see that our children shall not.

COL. KNIGHT'S LETTER.

We request the earnest attention of our readers, and the agricultural community generally throughout the State, to the very full and satisfactory statement submitted by Col. KNIGHT, the President of the State Agricultural Society. We are glad he went into the matter at such length, for it is something that cannot be disposed of with "a lick and a promise." He presents the case with perfect candor; and yet we trust the business will not stop there, but will continue to be agitated until everything necessary to render the Society a complete success will be provided.

We desire here to reiterate, what we stated in the March number of the *Planter*, that, in considering the State Agricultural Society, we looked at it as a *dis'inct entity*; and not at the persons who had charge of its conduct. We therefore utterly disclaim any and all personal reflection. The Society, worked properly, will avail the State immensely in the process of its recuperation, and if the present organization can do the work, our wishes will have been fulfilled, and certainly not less those of the State at large.

THE CURRENCY AND TRADE.

The great questions of the day are: How to correct the evils of our monetary system, and how to revive trade.

The national bank circulation stands in the way of a better currency. To tax a whole people, not for the support of the Government, but to enrich a few by enabling them to carry on a business which cannot support itself, is so obviously wrong as to require no reasoning to demonstrate it. The present system of national banks is sustained by money bounties wrung from the whole people to enrich the few. The strongest reason the friends of the banks can give for continuing the system is that if this aid is withdrawn many of the banks will be forced out of existence.

The Comptroller of the Currency labors in his last report to show that the money bounties so paid to the national banks amounts only to $2\frac{1}{4}$ per cent. on the entire capital invested. But it is much greater on the real investment in Government securities. The Comptroller states the entire capital required to purchase the bonds now held by the national banks, to be, including premium, \$425,840,533, and the available capital, after deducting premium, \$64,342,421, 10 per cent. margin \$36,149,811, and 5 per cent. redemption fund \$16,237,413, to be only \$309,080,847. Itake the difference, only \$116,759,686, to be the true amount of capital locked up in Government bonds. The Comptroller states the currency value of the interest paid to the national banks to be \$24,264,312. From which he deducts the tax of one per cent. on their circulation, \$8,353,482. But it is just to deduct but half of one per cent.—\$1,626,741—as all banking capital is taxed at this rate. This leaves the banks a net income on the \$116,759,686, really invested of \$20,637,571, or nearly $17\frac{3}{4}$ per cent. per annum. The enormous profits to the banks is clearly shown in that they have in an average time of about nine years cleared the sum of \$200,000,000, after paying in dividends to the shareholders an amount fully equal to the subscribed capital. It is proposed, under the plea of giving elasticity to the currency, to add to their money bounties by means of the interchangeable bond. This interchangeable bond will add about \$300,000,000 to the interest-bearing debt, as it will replace the treasury note (legal-tender) unless the amount is limited to a sum less than the present issue of treasury notes, thus increasing the annual interest on the debt about \$11,000,000, without any compensation to the people generally. The interest will go into the pockets of bankers, bank-shareholders, and Wall street operators. This bond will enable them to collect interest on all of their reserves, which prudence requires all banks to keep on hand. This bond will help the large money-lenders when the rate in Wall street is as low as the rate named in the bond. And the interest so paid will be for the benefit of the few, while the country gets nothing in return. It will give no elasticity to the currency. Now, if the national banks are required to withdraw their circulation, the inter-

est paid to them, plus the cost of supervising the banks—say \$25,000,000, will be saved annually. Further, we are at the mercy of the banks. They can and will deprive us of currency upon the first attempt to resume specie payment by surrendering their circulation and selling their bonds in order to save the premium—\$64,000 000. By retiring the national bank circulation we get rid of this uncertain currency, and in the treasury note we have just as redeemable, just as acceptable, and a far more permanent currency. If this is done, and it is understood that the currency will then remain uninfluenced by party politics, confidence will, in a great measure, be restored. Specie payments in fact can never be maintained. The total amount of specie held by all the banks and the Governments of the civilized world does not exceed the amount of circulating medium required in the United States, say \$800,000,000 or \$900,000,000. So we cannot pay in specie. Now, if we secure an exchange of actual values we are as near the end desired as we can reasonably hope to come. The balance of trade is against this country, and seems to be paid in specie. This country produces about \$65,000,000 annually, probably more. Now, if an export duty was placed on the precious metals the price of exchange would at once advance to establish the equilibrium. This would stimulate exportation of all the products for which a market is found abroad, since our exporters could undersell the European markets, being reimbursed in premium on bills, the importers being compelled to have the exchange. Thus an indirect barter would be established highly beneficial to this country. Then the demand for gold at home could be diminished by making treasury notes receivable for all dues except export duty on specie. With the increase of the supply and the decrease of the demand, we would soon see treasury notes everywhere at par with gold. But this would not lessen the value of exchange, as bills would always be worth par plus the export duty on specie until our exports exceeded our imports. An amendment to the Constitution is necessary to carry out this plan, but is that an insurmountable objection?

“CASHIER.”

NOTE BY THE EDITOR.—By special request we reproduce the above article from the *Whig* of the 14th of February last. The financial doctors are named legion, and no two of them appear to agree. How then, are we to decide? Indeed, as far as we are concerned, we would prefer not to discuss the matter. To our mind, too much prominence has already been given to it; for the truth is, in producing the general breakdown of confidence, so apparent throughout the country, it is as innocent as a babe unborn. The trouble, as we have elsewhere observed, has proportions altogether more gigantic than what should constitute our medium of exchange. It is to be found in the utter *rottenness of all governmental arrangements in this country*. “Universal Suffrage,” and its companion, “To the victor belongs the spoils,” playing into the hands of people naturally corrupt, have done the work, and done it to a perfection to satisfy their most sanguine admirers.

No man can mince his words in times like these. His old time fine-spun theories must succumb to facts. The writer's people are all democrats, so he will be acquitted of any particular predilection in the direction of his utterances here. SUFFRAGE IS WITHOUT ANY BASIS OF CONSERVATISM EXCEPT IN PROPERTY. An “educational test” is nothing, otherwise the North would have clean skirts; and the claim that because a man bore arms therefore he had a right to vote, is a sophism so bald that it is a marvel how a demagogue ever could have successfully maintained it, except with people who have nothing to lose. A man without property works this week in Richmond for two dollars per day—dissatisfied with his wages, he goes to Baltimore and gets three dollars per day; he leaves there and goes to New York, and gets four dollars per day. What is being done for him in the meantime? He is protected in his person and rights by what is called the State, and yet does not contribute a penny in support of that State. How then, can that man make any return for the benefits he has received except by giving *his service* to defend that State in time of peril?

When men's property interests are directly in question, and they are invested

with the ability of providing the means to protect those interests, they will see: 1, that the right men are made their representatives; and 2, that these men administer their trusts faithfully. The preservative instinct is enough to teach them that.

When the issue of an election, upon which rests the conservation of what men labor and toil for, is made to depend upon who can marshal the largest number of irresponsible persons, whether white or black, stability is impossible, and life becomes "a hell on earth," so full of apprehension is a man's mind constantly kept concerning the safety of the accumulations he has a right to enjoy.

The disease may be beyond cure, but buoyed up by hope, we will continue to keep before our people in the South those principles of conservatism that may, as a reaction from supreme wretchedness, at last come into play.

RESUMPTION OF SPECIE PAYMENTS.—An esteemed correspondent sends us a communication on this subject. As much as we think of him, we are compelled "to beg off." It is not the need of resumption of specie payments that is the matter with this country. The trouble lies very much deeper: IT WANTS A RESUMPTION OF GOOD GOVERNMENT. The confidence of a man willing to venture his money in business depending on the future, in the face of a government rotten to the core, could only be equalled by that of a man embarking for Europe in no stancher craft than a washing tub.

DOMESTIC AND CHEMICAL MANURES USED IN CONJUNCTION,

The "*Bussey Institute*" is located at Jamaica Plain, Mass., and it publishes from time to time, a "bulletin" in connection with its experimental farm.

"Among other articles in the last bulletin, is a 'Record of Trials of various Fertilizers upon the Plain Field of the Bussey Institution.' These experiments are a continuation of a series that have been in progress for four years. The effects of stable and yard manure, fish scrap, guano, phosphates, nitrogenous manures, potash salts, etc., upon the growth of barley and beans on a light, porous, and rather dry soil, have been tested by applying the same manure to the same crop on the same plot of land year after year.

"The results of these experiments favor quite decidedly the practice of using combinations of the different fertilizers rather than the individual articles by themselves. 'Mixtures of a phosphatic, a potassic, and a nitrogenous fertilizer produced very good results, even when compared with barn-yard or stable manure applied at the rate of ten cords to the acre.'

"One of the interesting conclusions drawn by Professor Storer from these experiments is that 'stable manure may be more profitably applied in small quantities along with artificial fertilizers than in large quantities by itself alone. It is probably true that in the vast majority of cases the real efficiency of barn-yard manure would be increased by the addition of a certain proportion of soluble potassic and nitrogenous fertilizers, and by dressing the land beforehand with superphosphate.' And further: 'Just as the mulching and diffusive power of the stable manure would tend to increase the efficiency of artificial fertilizers, so the ready solubility of the latter—their so-called activity—would enable the crop to use the constituents of the dung more fully than would otherwise be possible.'"

BIENNIAL SESSIONS OF THE LEGISLATURE.

"Nearly all of our Virginia contemporaries are in favor of biennial sessions of the Legislature, and notwithstanding the weight of so much accumulated wisdom in its favor, we are satisfied it will not work. As Mozis Addums would say, 'times are not like they used to was. Then you could. but now you couldn't;' but seriously, our State has many interests which need close and frequent atten-

tion. The machinery of government under our new Constitution is not yet working smoothly. Then there is the State debt, the public schools, and the county judges to be looked after, with hundreds of other things demanding the attention of the Legislature, and which will be sadly neglected if that body meets only once in two years. An experiment in the tax bill which would work injury to the State could not be repealed under two years, so that it will be found necessary for the Governor to convene the Legislature in extra session."

We copy the above from the *Portsmouth Enterprise*. In previous numbers of the *Planter* we indicated our notions in the matter of annual sessions of the Legislature. We have not changed them.

We propose, some time in the future, to refer to another matter, and that is, to show that it is not *more* taxation we need, but a re-arrangement of the thing we are trying to support, called the Constitution of Virginia. This precious document was the work of a set of people (referring to the majority of course) who would have graced a work-house or a penitentiary much better than a legislative hall, and was made to fill the State with office-holders, in the hope that scoundwags enough could be found, who, lending their aid to the negroes, would keep Virginia in perpetual subjection to the vulgar despotism at Washington.

We copy from *The Whig* the subjoined article in reference to our correspondent "CIVIS." We well know that "CIVIS" has no political aspirations, but we should greatly rejoice for the sake of the public good, to see him in the position for which he is so strongly recommended. Our readers will be glad to learn that our May number will contain another article from his pen in continuation of the discussion of Public Schools.

To the Editor of the Whig:

Allow me a short space in your valuable paper to express my hearty approbation of the well preserved sentiments of Dr. Woods in a late *Whig*, in regard to the improvement of the *Southern Planter*, and the unanswerable discussion by "CIVIS of the Public School."

The *Southern Planter* is the very paper for Southern farmers, and should be patronized by all who are able. The contributions of CIVIS, which have been enriching its columns with "gems of purest ray," are replete with logic and sound common sense. The ideas seem to throng his opulent mind, but to find the most graceful style of utterance. His resources, both in language and thought, seem inexhaustible. The flow from his brilliant pen seems like some majestic stream whose resistless tide it is presumption to oppose. I have often thought what a splendid Governor he would make. No better could be found between the Atlantic and Pacific.

To tax the little remnant of depreciated property to educate the negro is cruel waste. The laws of nature can't be repealed by man. All the hot-bed, artificial appliances of diabolical hate and ingenuity may be concentrated upon the unrighteous effort to "level up" what nature has leveled down, but a sad and ruinous experience will and must expose the folly. All the past of mankind demonstrates the absurdity.

I refer your readers to CIVIS in the late numbers of the spirited *Planter*, and to each succeeding number. POWHATAN.

We have communications for our *Stock* department, from Messrs. Ficklin, Bowman, Rowe, and Chiles, all of which will appear in our May number.

MAJOR FICKLIN has kindly remembered us, and sent us a ham, cured as only he can cure them. Upon the whole, we don't know but we ought to be sorry he sent it, for now we can't eat any of our common hams; nevertheless, we thank him for enabling us to know what a real good ham is.

"THE STATE."

Our esteemed friend, Capt. J. HAMPDEN CHAMBERLAYNE, has changed his home from Norfolk to Richmond, where he has launched upon the sea of journalism a bark bearing the name of "*The State*." He conducted the *Virginian* at Norfolk with signal ability, and we observe, by the notices of his departure in the papers, how much the people of our thriving seaport regret his "change of base." Few knights of the quill and scissors anywhere in this country wield a more facile pen than the Captain, and few have shown more courage in defending the right. Located at the capital of the Commonwealth, he will labor for the development of all of the interests of the State at large. Virginia now, in respect of its area, is but a "garden patch" by the side of its once ample proportions, but that patch is all we have. To the Captain we can trust for a faithful maintenance of our dignity, and for the preservation of that spirit in our people without which they had better never been born. We welcome him to our midst, and bespeak for his enterprise the heartiest encouragement of the people. He will speak with no uncertain sound.

NOTICE TO TOBACCO GROWERS.

Reduction in Price of

ZELL'S

—CELEBRATED—

TOBACCO FERTILIZER!

Unrivalled for the TOBACCO CROP. For sale by agents and dealers throughout the country.

PRICE, \$50 PER TON AT BALTIMORE.

Dissolved Bone Super-Phosphate

supplied to Manufacturers and Dealers at low figures.

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P. ZELL & SONS, Manufacturers,
No. 30 South Street, BALTIMORE, MD.

WM. STUART SYMINGTON.

THOS. A. SYMINGTON.

PATAPSCO CHEMICAL WORKS.

SYMINGTON BROS. & CO.,

Manufacturers of

OIL VITRIOL

AND OTHER CHEMICALS,

Works on Locus Point, }
Office, 44 South Street, }

mh-1y

Baltimore.

ALBEMARLE NURSERIES,

Near Greenwood Depot, C. & O. R. R., Va.

October 13th, 1875.

TO THE PUBLIC:

In estimation of the constantly increasing interest manifested in the culture of fruits in Virginia, I desire for a mutual benefit to extend and make more widely known my occupation and facilities to supply **RELIABLE FRUIT STOCK** at moderate prices.

This being one of the oldest establishments of the kind in Virginia, which has never changed proprietors in a quarter of a century of its existence, I claim a practical skill in propagation, and an acquaintance with successful varieties, unexcelled in Piedmont Virginia. And when it is remembered that this is locally the heart of the great fruit-growing region of the South, it must be pre-eminently the place to obtain the most reliable fruit stock. But the great wonder is (as I have been told to the prejudice of the reliability of my stock,) how I can afford to sell good and reliable trees so much lower than the same sort of stock can be had at our city nurseries. I will tell to all how I can afford to take only a fair price for my goods: I am at less expense to live and grow my stock in the country than those who live in and conduct near a city; I deal directly with my customers without the intervention of agents, clerks, and foremen at high salaries and costly outfits, and, therefore, save to my customers from 50 to 75 per cent. which is credited to them on my prices, and they get the benefit of all that which would go to pay the agents, &c., so the net proceeds is not far from being the same at last, but the difference to the purchaser is great. I am pleased to say that I have a thrifty and handsome stock of most of the leading kinds of "APPLES," including about 10,000 WINE SAP $3\frac{1}{2}$ to 7 feet, 2 and 3 years old, at \$10 per 100; 1 year, 2 to $3\frac{1}{2}$ feet, \$6 per 100. The stock of WINE SAP, I learn, is about exhausted elsewhere for this season in Virginia.

Of Dwarf Apple I have a great variety, 3 and 4 years old, 25 cents each. My new Piedmont Pippin Dwarf, and Extra Standard, \$1 each. No such apple as this has been introduced in this country lately. It resembles Albemarle Pippin, but the tree is different, being a much better grower. I possess the entire stock. This is priced high enough for those who have doubted my stock on account of low prices.

PEACH TREES.—Common choice early and late kinds from Hale Early to White Heath Cling; 1 year, $3\frac{1}{2}$ to 4 feet, 15 cents each, \$13 per 100; Early Beatris, Louis Rivers and Fosters, 25 cents each, \$20 per 100.

PEARS.—Standard and Dwarf, 50 cents each.

CHERRIES.—Standard and Dwarf, 50 cents each.

TERMS.—One-half the amount cash with the order; balance on delivery. If all the bill is sent with the order, if to the amount of \$30 and upwards, I will pay the freight charges through to the purchaser's depot.

Send remittances by registered letter, P. O. Order, Bank Check, or Express prepaid, at my risk. And direct all orders and communications to

JOHN DOLLINS,

Greenwood Depot, C. & O. R. R., Va.



“LINDEN GROVE.”

BERKSHIRES!

The SALLIE, SWEET SEVENTEEN, STUMPEY and SNIPED families, bred to perfection

At “LINDEN GROVE.”

Having lately received two importations of Berkshires, of first-class blood, among which were *Stewart's Gem*, *Stewart's Duchess* and *Stewart's Pride*, which won first prizes at Gloucestershire Agricultural Society, at Cirencester, Eng., and also prizes at other leading shows in England—there were also other prize-winners among the lot, such as the *1st Duke of St. Bridge*, winner of 1st prize at Croydon, England, and other noted shows, and pronounced by experienced judges to be the finest boar ever seen on exhibition—these, in addition to my last May's importation, give me one of the finest and most valuable herds of Berkshires in England or America—if not in the world—and I am prepared to furnish pigs of all ages, sired by *Plymouth* (the highest priced Berkshire boar ever sold in England or America), *Othello 1st* and *2nd Dukes of St. Bridge*, and by *Mark Antony*, out of my grand imported prize-winning sows, at reasonable prices.

Address,

T. S. COOPER,

“Linden Grove,”

Coopersburg, Lehigh county, Pa.

P. S.—My Prize sow Sallie XI. (Royal Beauty), winner of 1st prizes at the Royal Show, England, '74, 1st prize in her class at Ohio State Fair and Cleveland, and winning sweepstakes in a large and hotly contested ring at both Fairs in '74, has at present a litter of 8 pigs (7 boars and 1 sow) which are now 8 weeks old, and sired by imp. 2nd Duke of St. Bridge, which I will sell when three months old, boxed and delivered at our express office, with feed for journey, for \$50 per head. In her last litter she had 8 pigs; two of which—*Sambo XI.* and *Sallie XIV.*—were got up for the shows, and won first prizes at the leading shows in the West. The boar won 1st prize in his class at the following fairs: Ohio State Fair, Indiana State Fair, Cleveland and St. Louis; also sweepstakes at Cleveland and at the world's show at St. Louis, as best boar of any age or breed. The sow won sweepstakes at Cleveland, in a large class, as best sow of any age or breed; also 1st prize at other local shows.

My imported prize-winning sows, *Stewart's Gem* and *Duchess* have littered seven pigs each since their arrival, the largest, finest and best Trmed pigs I ever mind seeing. They were sired in England by Capt. 1fo hur Stewart's prize boar.

1A he young pigs will be for sale when three months old.—T. S. C.

RICHMOND CLOTHING EMPORIUM

1007 MAIN STREET, opposite Postoffice,

RICHMOND, V.A.

Wilkinson & Withers,

MANUFACTURERS AND DEALERS IN

READY-MADE CLOTHING AND FURNISHING GOODS.

Keep a very large stock of Fine and Medium CLOTHING for City and Country wear.

Special attention to neat and substantial Clothing for our country friends, consisting of Suits PANTS, VESTS, and Long Sack and Frock OVERCOATS for horseback riding. "Patrons of Husbandry will take notice."

ALSO,

Large variety of FURNISHING GOODS, Merino and Flannel SHIRTS and DRAWERS, all grades; CANTON FLANNELS; best JEANS DRAWERS; Linen and Paper COLLARS, CUFFS, CRAVATS, assorted; HOSIERY, assorted; LINEN HANDKERCHIEFS; SILK HANDKERCHIEFS; KID GLOVES, all colors; CASTOR GLOVES; best BUCK GLOVES; HEAVY RIDING GLOVES, &c., &c.; RUBBER HATS, CAPS and OVERCOATS—in fact, everything necessary for a first-class Clothing and Furnishing House, all at the lowest CASH or C.O.D. PRICES.

Dress Shirts our Specialty.

SOLE AGENTS FOR

KEEP'S PATENT PARTLY-MADE DRESS SHIRTS

The plan for home-made Shirts on the score of economy is no longer valid. We will furnish these Shirts, made of best Wamsutta cotton, 2100 Irish Linen Bosoms and Cuffs, 3-ply; all sizes, latest styles, open back and front, perfect fitting, only one quality, and guaranteed equal to the best \$3 Shirt in any market, for the low price of \$1.25 for men, \$1 for boys; selling 500 per week. The net saving by using this Shirt in Virginia one year will more than pay the interest on the public debt of the State. Away, then, with the talk of repudiation. Save the honor of the Old Dominion by repudiating high-priced Shirts. Sample Shirt sent by mail on the receipt of \$1.25 and 13 cents postage. This Shirt is a public blessing; so regarded by all who have tried them.

WILKINSON & WITHERS,

Clothiers and Furnishers,

No. 1007 Main Street, Richmond, Va.

PREPARED AGRICULTURAL LIME

The best and cheapest preparation for Tobacco, Cotton, Corn, Clover and other Grasses, Peanuts, Potatoes, Turnips, &c. Only \$12 Per Ton Cash, delivered at the various Depots of the City.

It is specially adapted to the growth of Cotton and Tobacco, as will be seen by the several Certificates herewith.

✎ This preparation consists of Carbonate of Lime, Sulphate of Lime, Potash and Chloride of Sodium, and the manner in which they are combined renders each one more effective.

But to the testimony.

TOBACCO.

Mr. P. C. RUSSELL, of Wyliesburg, Charlotte county, Va., says: "I used a small quantity of your Prepared Agricultural Lime on part of my Tobacco crop, using composts on the rest. Where I applied the Lime the Tobacco was of a much better growth, and after being cured the Tobacco had a much better body and was considerably much heavier than the rest. I am thoroughly convinced lime is what we need."

Mr. GEO. A. PAYNE, of Hunter's Lodge, Fluvanna county, Va., writes: "I used your Prepared Agricultural Lime on my Tobacco, and its results were far beyond my most sanguine expectations. My neighbors who saw it were astonished at its growth."

Proctor's Creek, Chesterfield county, Va., January 6th, 1876.

Mr. A. S. LEE: *Dear Sir*,—I used your Prepared Lime on part of my Tobacco crop—about five or six hundred pounds to the acre, broadcast—and it was much the best and heaviest portion of my crop. I seeded Wheat after the Tobacco, and although it was seeded late, the difference in the Wheat is already quite apparent.

R. A. WILLIS.

GRASSES.

Mr. J. W. SPIERS, of Reams Station, Dinwiddie county, Va., writes: "I used your Prepared Lime last Spring on Corn, and I made the best crop I ever made on high land. I had some left and applied it to my Wheat last fall, and it is now looking much better than usual on the same land."

COTTON, &c.

Mr. SPIERS: *Dear Sir*,—In regard to the Prepared Lime I bought of you last spring, I have to say, we used it under Cotton and Peanuts, with satisfactory success. We used it in four different fields, side by side with a \$50 fertilizer, and in each case the Prepared Lime proved the best.

Most Respectfully Yours, WM. HOWE.

Hon. Mr. LEMMON, member of the Legislature from Sussex, at Stony Creek, says: "I used some of your Prepared Lime, and will say that it is the best fertilizer for the money that I ever used for Peanuts and Cotton. My tenants all used it and join in recommending it."

Stony Creek, January 28th, 1876.

Mr. ALFRED S. LEE: *Dear Sir*,—The Prepared Lime you sent to Stony Creek, by John Spiers, proved to be as good as any fertilizer that we used. I have seen it used by the side of a \$50 fertilizer, and think it is the best. I shall want five tons this year if I can get it.

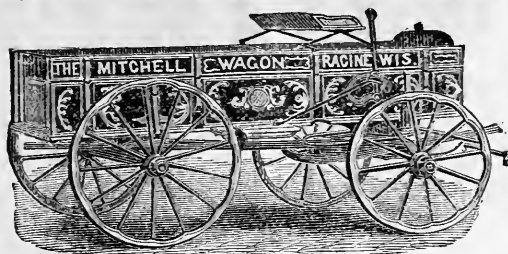
Yours Truly, D. H. LADUS.

To be had of the following Agents:

James M. Towles, Raleigh, North Carolina; Ols, Parsley & Co., Wilmington, North Carolina; James Sloan's Sons, Greensboro, North Carolina; Rowlett, Tannor & Co., Petersburg, Va.; Warren, Paulett & Co., Farmville, Va.; Miller & Taylor, Lynchburg, Va.

PREPARED AND SOLD BY
ALFRED S. LEE,
108 & 110 Virginia St., Near Danville Depot,
RICHMOND, VA.

FARM AND FREIGHT



WAGONS. FARM IMPLEMENTS.

We have recently added to our large stock of implements a full assortment of the best

FARM AND ROAD WAGONS

made in this country, which we can recommend to every one in want. They are

STRONG, LIGHT-RUNNING AND DURABLE.

and what is of equal interest to purchasers, are a marvel of cheapness.

We warrant them for twelve months. Farmers and merchants who have to wagon their produce and goods will save 25 per cent. of their hauling expenses by buying these wagons. We guarantee entire satisfaction to every purchaser.

We issue for free circulation a small wagon catalogue, with full description and prices.

STOCK-FARMERS

are invited to send for circulars of Food-Steamers, Fodder-Cutters and Light Horse-Powers; also, Corn and Cob-Crushers and Root-Cutters.

All farmers are invited to try the OLIVER CHILLED PLOW.



This Plow took the first premium, both for one-horse and two-horse plows, at the Virginia State Fair this year, and we offer it to the farmers of Virginia and North Carolina as the BEST PLOW IN USE. It can be returned if it does not prove so, and the money will be refunded.

Our old customers are assured that the burning of our factory last year has not in the slightest degree lessened our ability to fill their orders for goods in our line. On the contrary, we have now a larger factory, more and better machinery to manufacture with, and a larger and better stock of material and manufactured goods than we have ever had.

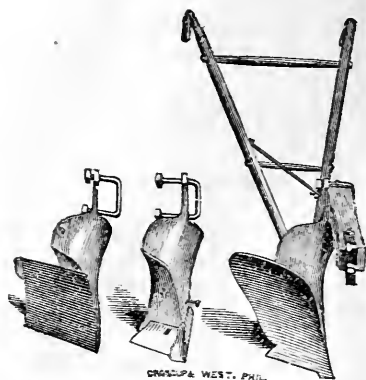
Address, H. M. SMITH & CO.,

P. O. Box, 8, Richmond, Va.

Manufacturers.

THE WATT PLOW

VICTORIOUS ON EVERY FIELD!



CINCINNATI, WEST, PAUL

A combined TURNING PLOW, CULTIVATOR, SUBSOILER, ROW-OPENER, PEANUT-DIGGER, TOBACCO and COTTON SCRAPER and SWEEP.

No CHOKING when bright and smooth; no LABOR to the plowman; ONE-THIRD LESS DRAUGHT to the team; thorough BURIAL of Weeds, Grass, &c.; great STRENGTH, Durability and Economy in its use, and complete pulverization of the soil.

FARMERS WHO USE IT WILL USE NO OTHER.

Awarded all the Premiums at every Fair attended in 1873.

Awarded First Premiums at every Fair attended in 1874.

Virginia State Fair, Richmond—FIRST PREMIUMS ON THREE AND FOUR-HORSE PLOWS.

Right and Left Hand—ALL PREMIUMS AWARDED THEIR SIZES.

Also at the Plowing Match ALL PREMIUMS AWARDED WHITE PLOWMEN were taken with WATT PLOWS of ONE, TWO, THREE and FOUR-HORSE SIZES; and COLORED PLOWMAN by ONE, TWO and THREE-HORSE SIZES; being

SEVEN PREMIUMS OUT OF EIGHT.

The superior work done by the WATT, and the complete ease with which it is handled, was apparent to all.

NORTH CAROLINA STATE FAIR, Raleigh, October 10th;

GEORGIA STATE FAIR, Atlanta, October 19th;

SOUTH CAROLINA STATE FAIR, Columbia, November 10th;

STAUNTON, VA., October 13th;

LYNCHBURG, October 20th;

WELDON, N. C., October 20th;

ORANGEBURG, S. C., November 3rd;

CHARLOTTE, N. C., November 3rd;

DANVILLE, VA., November 3rd;

POINT PLEASANT, W. VA., October.

Thus, with its great reputation before, it has gained new laurels this year, which must convince every farmer of its vast superiority over other plows.

We warrant every plow sold to be as represented or to be returned to us. We solicit a trial. Catalogues sent to any address.

WATT & CALL,

SOLE MANUFACTURERS,

1452 Franklin St., Richmond, Va.

Special Agents for "The Best" Spring-Tooth Horse-Rake and Gleaner; also for sale of our own manufacture, HARROWS, CULTIVATORS, and all kinds of IMPLEMENTS at lowest prices—all warranted.



DOMESTIC
SEWING
MACHINES.

Liberal terms of Exchange
for Second-hand Machines,
of every description.

"DOMESTIC" PAPER FASHIONS.

The Best Patterns made. Send 5cts. for Catalogue.

Address DOMESTIC SEWING MACHINE CO..

AGENTS WANTED. NEW YORK.

A LIMITED SUPPLY OF HIGHLY IMPROVED **Chester Cotton Seed.** For sale at \$2 per bushel, sacked and delivered at Union Depot, or in lots of ten bushels, \$1.75 per bushel.

I have devoted much time to the improvement of cotton, corn, and other seeds, and think I have the purest variety of cotton I have ever seen. It has been tested in the same field with most of the improved varieties, and in every instance it has borne off the palm, making in some instances over two bales per acre. No pains or expense has been spared to bring this cotton up to the highest state of productiveness.

All orders must be accompanied by cash, which can be sent prepaid by Express or P. O. Order.

J. R. MINTER,

Unionville, S. C.

GREAT CLOSING-OUT SALE!

PREPARATORY TO MAKING OUR SPRING PURCHASES.

Excellent Calicoes at $6\frac{1}{2}$, $8\frac{1}{2}$, and 10c. per yard; Plaid Cambrics, yard wide, at $12\frac{1}{2}$ c. per yard, worth 20c.; Wash-Poplins at 10, $12\frac{1}{2}$, and $16\frac{3}{4}$ c. per yard, all worth 25 per cent. more.

Handsome Plaid Dress Goods at 20, 25, 30, 35, and 40c. per yard—a reduction of from twenty-five to thirty-five per cent. has been made in these goods.

Best quality Hamilton Tycoon Reps at 20c. per yard, worth 30c.; a large lot of remnants of Dress Goods at a sacrifice.

Elegant double-width Plaids, for over-suits, at \$1.25 and \$1.50 per yard, worth \$1.75 and \$2; Black Alpacas at 25, 30, 35, 40, 45, 50, 55, 60, 65, 75, 85c. and \$1 per yard; the best goods for the money ever offered in this city.

Black Silk-Finish Mohair at 50, 60, and 75c., worth 85c. and \$1 per yard, as handsome as a silk, and all very cheap; Australian Crepes at 50, 60, and 75c., worth 65, 75c., and \$1 per yard.

Black French Merinoes and Cashmeres in all quantities at greatly reduced prices; Black and Colored Silks in all quantities at extraordinary bargains; all other styles of Dress Goods at reduced prices.

Utica 9-4 Bleached Sheeting at $33\frac{1}{2}$ c.; 10-4 at 35c., and 12-4 at 40c.—these prices are lower than ever offered before; full-width Bleached and Unbleached Sheeting at 25c. per yard.

Red Twilled Flannels, all wool, at 30, 35, 40, 45, and 50c. per yard—from 10 to 15c. per yard below regular prices; Blue Twilled Flannels at same prices; Gray Twilled Flannel from 25 to 50c. per yard; White Twilled Flannel at 30, 40, and 50c. per yard.

Plain White, Red, Yellow, and Gray Flannels from the lowest to the best qualities; Embroidered White Flannel.

Colored Blankets at \$1.50, \$2, \$2.50, and up to \$6 a pair; White Blankets at the best bargains ever offered. We beat the best auction out of sight on these goods.

Calico Comfortables—home-made—at \$1.50, \$1.75, \$2, \$2.50, and \$3, all made of good calico and quilted with pure cotton; three, four and five thread Unbleached Knitting Cotton at 30c. per pound; White Knitting Cotton, in balls, all sizes from six to twenty, at 60c. per pound.

Carpet Warp in all colors, the best manufactured, at \$1.75 per bundle of five pounds; Cotton Yarns, all sizes from four to twelve, at \$1.15 per bundle of five pounds.

Corsets in all qualities, from 40c. to \$6 per pair. We call particular attention to our 110 bone Corsets at \$1.15 per pair, worth \$1.75; excellent two-button Kid Gloves at 75c. and \$1 per pair, and four-button Kid Gloves at \$1.50 per pair.

Pure Linen Table-Cloths, two yards long, at \$1, worth \$1.50; Linen Doilies at 60, 75c. and \$1 per dozen, worth 75c., \$1 and \$1.20; Linen Napkins at \$1, \$1.25, \$1.50, and up to \$6 per dozen; Huckaback Towels at \$1.50, \$2, \$2.25, \$2.50, \$3, and up to \$12 per dozen—all extremely cheap.

Parties ordering goods to be sent by mail will please enclose postage. We have but one price, and sell for cash. Goods sent by express C. O. D., or as directed, upon the receipt of the money or its equivalent.

LEVY BROTHERS,

Jan

1017 and 1019 Main street, Richmond, Va.

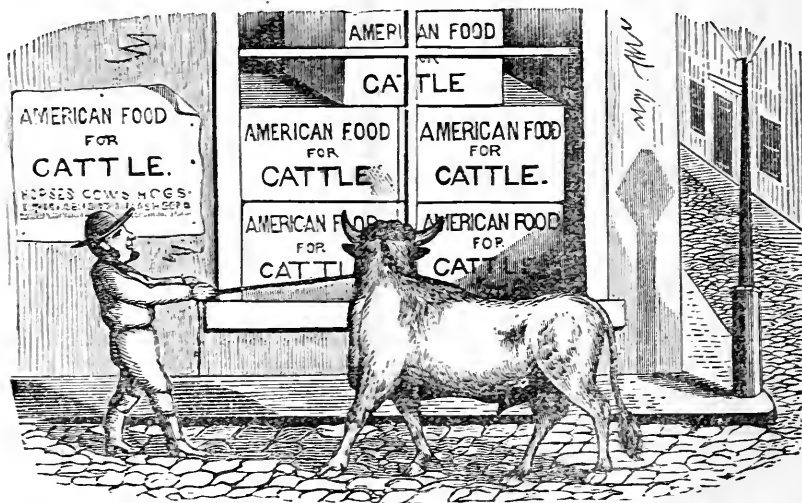
FARMERS AND DEALERS
PURE FINE GROUND BONE,
PURE BONE FLOUR,
 PURE DISSOLVED BONE ASH,
Pure Dissolved Raw Bone.

66° Oil Vitroil, German Potash Salts,
 Pure Chemicals for making Superphosphate at the lowest market price.

Call at **R. J BAKER & CO'S.**

Aug—1y

B ALTIMORE, MD



THE AMERICAN FOOD FOR CATTLE

Invaluable for Horses, Cows, Sheep, Pigs, Poultry and Dogs.

To breeders training cattle for the show-yard or for sale, it is essential. It produces flesh, hair, milk and wool. It is conducive to health, cleanliness and good condition. For the diseases of Poultry it is a specific.

ROBT. HUME, Manufacturer.

Jan—3t

Office and Depot: No. 18 Fifteenth street, Richmond, Va.

THE AMERICAN



"EUREKA."

FOOD FOR CATTLE.

Sold in 5-Cent Packets or Feeds.

\$4.00 per Box of 100 Packets or Feeds, 30 lbs.

\$7.00 " Two Boxes of 200 Packets or Feeds, - 60 "

\$12.00 per Four " 400 " " - 120 "

REGULARITY OF USE INSURES SUCCESS.

ROBERT HUME, Manufacturer,

Office and Depot No. 18 Fifteenth Street,

RICHMOND, VA.

FOR CATTLE.

This Food promotes flesh, hair, and puts on the mellow-ness of touch and bloom, indicative of good health and condition.

Milking cows show the benefits of its use in more and richer milk.

Breeders forcing animals for sale or show, are apt to clog the appetite with rich feeding stuffs. This Food is then of great service, by its use and sparing feeding, the appetite is regained, the tight and staring skin brought into a healthy state, and that calm tranquil state induced which experience teaches us is essential to the laying on of condition, and depends on the perfect working of the digestive organs.

Many young animals suffer from a surfeit of another kind, poverty, hide bound and non-thriving are caused by underfeeding, and may be relieved by a more generous diet and the use of condimental food. This Food makes excellent porridge for pail-fed calves, and though nothing but new milk will make veal, it is a good diet for holding calves, which would otherwise cost too much to rear, by encroaching on the supply of new milk when in demand and profitable.

In rearing all young animals, the never suffering them to be checked, but kept constantly growing, is a golden rule for breeders.

FOR SHEEP.

Prevention is better than cure, and as sheep are indifferent patients, the keeping them healthy is less expensive and troublesome than allowing them to be exposed to the attacks of disease.

Health in sheep means plenty of good mutton, wool, exemption from rot, foot rot, scab and vermin, and in ewes, safe and easy parturition and the successful raising of lusty offspring.

The American Food for Cattle promotes growth of mutton and wool, contains sufficient saline particles to prevent rot, purifies the blood, thereby in a great measure destroying all parasites, and with proper outward applications does away with scab and foot rot, which can only be thoroughly cured by scrupulous care and judicious use of carbolic acid, which for these diseases is certainly infallible.

For three or four weeks previous to lambing, ewes should have a fair allowance of the Food. The large percentage of mucilage contained in it, will greatly advance their safe and easy lambing, reduce the labor and anxiety of the shepherd, and increase provision of milk for lambs.

Farmers feeding roots to their ewes will find the Food a much safer diet after difficult parturition, and very nourishing and cordial.

To pedigree sheep breeders, this Food is specially adapted, the fattening propensities of highly bred sheep being so prejudicial to safe lambing, and the loss of their produce so severe and sometimes irremediable.

For ewes, half a packet per day is proper allowance, mixed with cut hay, oats or crushed corn.

FOR PIGS.

Pigs are very liable to skin disorders and indigestion from gross feeding; no animal is more difficult to administer medicine to or sinks more quickly under the attacks of disease.

The Food is readily mixed and consumed with their usual diet, and in a great measure fortifies them against all coughs, eruptions, &c., caused by an impure state of the blood. It stimulates their growth, improves their condition very rapidly, and certainly has valuable anti-septic properties so far as sound, firm, mellow meat ensures perfect curing.

It will in a great measure prevent milk fever, a disease very fatal to animals of such fattening propensities, as well bred pigs of the present day.

FOR POULTRY.

All fowls eat it readily and thrive on it, persons once giving it a fair trial, will never suffer their feathered pets to be without it; the effects of its use are so apparent in the glossy plumage, appearance of vigorous health, and regularity of laying. It fortifies chickens against inclement and cold weather, prevents that fell disease, cholera, and quickens their growth wonderfully. Fowls eating it are not liable to lice, and are kept healthy and more profitable.

VETERINARY HYGIENE:

GOOD HOUSING, PURE WATER, LIBERAL FEEDING, AND

"THE AMERICAN FOOD FOR CATTLE."

The February number of the *Progressive Farmer*, an excellent agricultural journal, published at Cedar Rapids, Iowa, in an article on "our veterinary wants," has the following: "It is no uncommon thing to meet with animals valued at from one to ten thousand dollars, and such animals are not unfrequently kept in localities where it would be impossible to procure any timely assistance in case of sickness." On the plan of prevention being better than cure, it is the duty and policy of all holders of valuable stock, to use for their protection such sanitary measures as well sheltered and ventilated housing, pure water and a diet suited to their wants, and calculated to obviate the need of expensive, and possibly, unattainable veterinary treatment. The article goes on to say "both horses and cattle are subject to nearly the same diseases as the human subject." Fortunately, in man, parasitic disease is subordinate; in animals, unfortunately, paramount.

Flukes in sheep, worms in horses, trichinae in hogs, tape-worm in dogs, and small worms in windpipe of fowls are dire instances of life feeding on life; the stronger animal falling a prey to the weaker and despicable creature. The breeder and feeder of all kinds of stock, will find it to his advantage to fortify them against these pests, by using this condimental food which produces a lusty, vigorous state of health, obnoxious to all parasites.

THE CENTENNIAL.

The proprietors of the American Food for Cattle, have applied to the Commissioner of Agriculture for the Centennial, for permission to give four special prizes of \$50 each, in the head classes of Clydesdales or Percherons, Shorthorns, Sheep and Pigs. In the classes, no extra judging for these special prizes will be needed; the premium animal in the class to take the special, if certified to have used the Food, if not so certified, the next in order of merit that is.

The American Food for Cattle is advertised and favorably mentioned in most of the leading agricultural papers, viz: *Country Gentleman*, *Practical Farmer*, *Stock Journal*, *Southern Planter and Farmer*, &c.

B. H. Campbell, Esq., a well known horse and Shorthorn breeder, than whom there are few, if any better judges in the country, writes from his stock-farm, Batavia, Ill.: "The Food is an excellent appetizer, and undoubtedly very rich in fattening properties."

A good condimental food is a wonderful help to gentlemen preparing animals for the show yard or sale ring, and we claim the American Food for Cattle will send them along in condition; put a good touched skin on them, and start non-thrivers quicker than anything else IN THE MARKET.

Used with Great Satisfaction and Success by the Following Gentlemen :

John B. Davis, Esq.,	Richmond.	G. A. Ainslie, Esq.,	"
R. H. Whitlock, Esq.,	"	E. W. Powell, Esq.,	"
Woodward & Sous,	"	M. M. Blacker, Esq.,	Amelia.
J. B. Pace, Esq.,	"	R. L. Tritton, Esq.,	"
J. C. Lewis, Esq.,	"	C. E. Guilmar, Esq.,	"
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Clarence Eacho, Esq.,	"	Powys Bros.,	"
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Thomas Doswell, Esq.,	"	— Garret, Esq.,	Norfolk.
J. Smith, Esq.,	"	Capt. Staples,	Buckingham.
Bossieux Bros.,	"	B. H. Campbell, Esq.,	Ill.
J. B. Watkins, Esq.,	"	M. Nathan, Esq.,	Liberty, Mo.
John Lindsey, Esq.,	"	R. Weston, Esq.,	Dawson, Ga.
W. H. Brauer, Esq.,	"	Dr. Stevens, V. S.,	Lynchburg.
Col. Robertson,	"	Shaner Bros.,	"

AND MANY OTHERS.

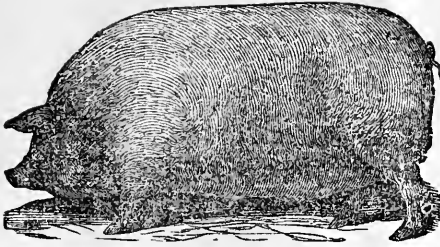
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SOLD EVERYWHERE.

THE REGULARITY OF USE INSURES SUCCESS.

Giving it at intervals is neither fair to the animals nor Food. From a fair trial we anticipate a continued demand, and rely on the proof of the pudding in the eating of it.



T. J. Wooldridge,

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HANOVER CO., VA.

IMPROVED

ENGLISH ESSEX PIGS,

And most choice varieties of

Land and Water Fowls.

Price List Furnished on Application.

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FURNITURE WORKS,
RICHMOND.**

Having timber tracts in this State sufficient to last several years, with a complete lumbering rafting, and saw-mill organization of fifty men, together with one of the most complete factories in the country located in this city, can furnish Poplar and hard wood (no soft pine) low-priced FURNITURE as cheap as any factory North or West—and fine Walnut FURNITURE cheaper. A stock of one million feet of lumber insures seasoned work, warranted in this and every respect. Manufacture MATTRESSES of all kinds.

Lumber-mill, Indiantown, Va.; Factory, Rocketts street; lumber-yards, Ash and Poplar streets; warerooms, No. 18 Governor (Thirteenth streets,) Richmond. apl

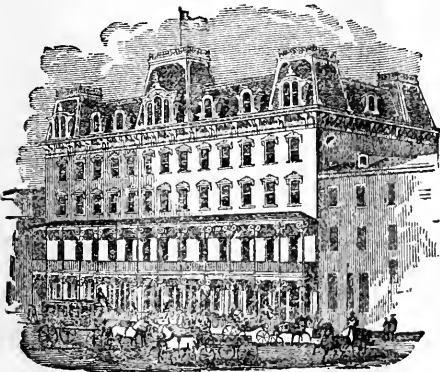
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A market garden of $10\frac{1}{2}$ ACRES of VALUABLE LAND for sale in Rocketts, 500 yards from corporation limits of Richmond. Has a

Two-Story House, with Good Outouses.

LAND VERY RICH.

PRICE, \$4,000. Address, **T. L. P.,**
Care "Southern Planter and Farmer," Richmond, Va.



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C. R. HOGAN, Proprietor.

Has just received a series of costly and elegant improvements, embracing every department of the Hotel, making it one of the finest Hotels in the city.

Board reduced to \$2.50 per day.
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G. W. ROYSTER & CO.,
Commission Merchants,
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Solicit Consignments of Tobacco, Grain, Flour and Produce Generally

Refer by Special Permission to J. W. LOCKWOOD, Cashier National Bank of Va., Richmond; ISAAC DAVENPORT, Jr., Pres. First National Bank, Richmond.

Grain Bags furnished on application.

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"LOCKWOOD HOE."

BLADE ALL STEEL.

Eye malleable iron. Every Hoe warranted. Best Hoe for general use in the market. The Hoe for merchants to sell, because it gives satisfaction.

Manufactured by

BALTIMORE STEEL HOE WORKS,

and **O. H. HICKS & CO.**

For Sale by the trade generally.

Nov 6m

BUCKEYE MOWER AND REAPER,
Sweepstakes Thresher and Cleaner.
ECLIPSE AGRICULTURAL ENGINE,

Best, Cheapest and most Economical Engine in the market.

Circular Saw Mills; Mill Stones, Bolting Cloths, Eureka and other Smut Machines; Belting, Spindles, Mill Picks, Portable Farm and Grist Mills.

Cucumber Wood Pumps with Patent *Cast Iron* Cylinder. War-
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JOSHUA THOMAS,

53 Light Street, Baltimore, Md.

Prices and Descriptive Circulars furnished on application.
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THE SOUTHERN
PLANTER AND FARMER,
TWO DOLLARS PER ANNUM.

SOLUBLE PACIFIC GUANO,

FOR TOBACCO, CORN AND OTHER CROPS.

After ten years' continuous use, throughout Virginia and the South, Soluble Pacific Guano has acquired a reputation for reliability equal to that formerly enjoyed by the Peruvian Guano, and the quantity used annually exceeds that of any other fertilizer.

It has been the aim of all connected with this Guano to produce the best possible fertilizer at the lowest possible cost, and we claim that the unusual resources and facilities of the manufacturers have enabled them to approach this more nearly than has been done in any other fertilizer with which we are acquainted. Those who have been using it unite with us in the opinion, that by its use the consumer gets

THE GREATEST BENEFIT FROM THE SMALLEST OUTLAY.

We offer it with great confidence for use on the Tobacco and other crops to be grown in 1875 with the assurance that it is, in all respects, equal to what it has been in the past.

PURE PERUVIAN GUANO,

AS IMPORTED.

We have a full supply of **No. 1 Guano** Peruvian Guano, from the Government Agent in New York, selected from one of the finest cargoes ever imported. It is dry and in beautiful order, and contains within a fraction of **13 per cent. of Ammonia**, which is within two per cent. of what the old Chinchu Peruvian used to contain—in fact, it would be difficult to tell one from the other.

We offer these standard and thoroughly tested fertilizers for Tobacco, Corn, and all Spring Crops, and are prepared to sell them at such prices as will make it to the interest of consumers and dealers to purchase their supplies of us instead of sending their orders to New York, or elsewhere.

For further information and supplies, address,

ALLISON & ADDISON,

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Seed and Guano Merchants, Richmond, Va.

ST. JAMES HOTEL,

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Pleasantly located on Twelfth Street, facing Bank Street and the Capitol Square. In the centre of the business portion of the city, within one square of the Post Office and Custom House, it is, by its retired location opposite the southeast corner of the beautiful park surrounding the Capitol of Virginia, the most quiet hotel in Richmond.

The proprietor having had a life long experience in hotel business—first at the Everett House, New York, and afterwards as proprietor of the Spotswood Hotel, Richmond, in its best days—and now assisted by Mr. JOHN P. BALLARD, the popular veteran hotel-keeper of Virginia, assures visitors of the ST. JAMES that no effort on his part will be spared to make them comfortable and to keep the house in first-class style. Coaches will attend the arrival of all trains. Elegant carriages are at all times at the service of the traveling public.

june

T. W. HOENNIGER, Proprietor.

FALL STYLES, 1874.

CHARLOTTESVILLE WOOLEN MILLS

SAMPLE CARDS

Are now ready for mailing. Our assortment embraces

TWENTY-FOUR PATTERNS.

Merchants desiring samples, will please address,

CHARLOTTESVILLE WOOLEN MILLS,

CHARLOTTESVILLE, VA.

GRANGE'S AMERICAN SUPER PHOSPHATE,

Manufactured from the most concentrated materials, and contains a large percentage of POTASH, which especially adapts it for the cultivation of

Tobacco, Corn, Potatoes, &c.

Write for analysis, terms and prices.

German [Stassfurt]
**POTASH SALTS,
(KAINIT,)**

Calcined, Ground and wholly Soluble, containing 23 to 30 per cent. of

SULPHATE OF POTASH

and other valuable ingredients, being the cheapest source of Potash now available; also MURIATE OF POTASH, 80 per cent. and upwards. Send for descriptive circular. Also

Pure Bone Dust and Bone Meal,

Containing Ammonia $4\frac{3}{4}$ to 5 per cent. Bone Phosphate of Lime 43 to 50 per cent.

To those who wish to manufacture their own PHOSPHATES we offer a complete line of PUREST MATERIALS, and will furnish formula.

F. C. GRANGE & CO.,

Office, 47 Light Street,
Baltimore, Md.

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GRIFFITH & TURNER,

41 and 43 North Paca Street,

BALTIMORE,

MANUFACTURERS OF THE

MARYLAND HAY & FODDER CUTTER,

—AND—

BUCKEYE SELF-DISCHARGING HORSE RAKE,

Also a general assortment of

Agricultural Implements

FERTILIZERS,

FIELD AND GARDEN SEEDS.

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STOCK FOR SALE.

Constantly on hand, Short-horn

BULLS, COWS, AND CALVES,

of the most approved strains. The pure Bates Bull,

FIDGET'S OXFORD 12th


at the head of the herd.

BERKSHIRE PIGS

from sows either imported or bred direct from imported sire and dam. The recently

Imported Boar "AYLESBURY CHIEF,"

at the head of the herd. Prices low. Send for Catalogue.

 Fine Bronze Turkeys, at \$7 per pair.

A. M. BOWMAN,

Dec—6m

Waynesboro, Augusta county, Va.

ELLERSLIE FARM.

THOROUGHbred HORSES,

HALF BRED HORSES.

PURE SHORTHORN CATTLE,

IMPROVED BERKSHIRES

For sale. Address

R. J. HANCOCK,

Jan-1y Overton, Albemarle co., Va.

Thoroughbred Stock for Sale.

DEVON CATTLE and SOUTH
DOWN SHEEP.

ESSEX AND POLAND CHINA HOGS A SPE-
CIALTY.

Also, Light Bramah and White faced Black
Spanish fowls, &c. All bred from the most fash-
ionable strains of Prize Winning Stock. Selected
with great care from the best herds in the
United States. Satisfaction guaranteed.

Light Bramah eggs per dozen.....\$1 50

White Faced Black Spanish eggs per doz... 1 50

White Guinea eggs per doz..... 2 00

Black Guinea eggs per doz..... 1 50

All carefully packed and delivered to Ex-
press Office.

Address
F. W. CHILES,
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If you wish to grow Vegetables for sale,
read

Gardening for Profit!

If you wish to become a Commercial Florist,
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Price \$1.50 each, post-paid, by mail.

Our Combined Catalogue for 1876, of

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GARDEN!

Sent Free to all Applicants.

Our large Illustrated Catalogues of *Seeds*
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35 Cortlandt Street,
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WALNUT GROVE FARM.

THOROUGHbred and GRADE JERSEY CATTLE, BERKSHIRE and ESSEX SWINE, and BRONZE TURKEYS.

First Premium awarded me by Va. State Agricultural Society, in 1874 and '75, on Thoroughbred Jerseys, Male and Female, also on Essex Swine, Male and Female, under 1 year old. First Premium awarded on Bronze Turkeys of 1874, and I am breeding from the First Premium birds of 1875.

Prices moderate—Satisfaction Guaranteed.

Address,

G. JULIAN PRATT,
mar—1y *Waynesboro, Augusta co., Va.*

A.
**SILVER
MEDAL**



Hand saw, Drills and Wheel Hoes, perfected for '76. Four sizes! They "saw like a charm!" no packing of seed in the hopper, no cranking it, no paring or waste at the ends, no irregularity in teeth, no jerking or jerking to wear out, no "slips," no noise. No matter how the Double Wheel Hoe works faster, better, and from 25 to 50 per cent faster than the hand hoe; often saving the gardener 10 days in a season. Sifts two rows at once, when 6, 9, or 10 in. are apart. Four pairs of hoes; blades tempered steel. We have an admirable Cornrow Machine possessing nearly all the excellencies of the separate ones. No vegetable garden, however small, should be without one. Our New Horse Hoe, perfected after ten years of experiment, saves most of the hoeing and makes the work so easy; leaves the ground level or ridged as desired. Turns up roots, kills, and cultivates shallow or deep, and is a thorough weed killer; should be owned by every farmer. Full Descriptive Circulars and Testimonials free. Attention this paper S. D. ALLEN & CO., Sole Manfrs No. 119 S. 4th St., Philada. Pa. U. S. Patent Office. Live Agent in Every Town.

dec—6t

Berkshire Hogs For Sale.

We have for sale, some Berkshire Pigs, \$15 per pair, 3 months old. Some young Berkshire Boars, and one very fine Berkshire Sow 2½ years old, supposed to be in pig by a genuine Berkshire Boar. All warranted pure blood (from Cooper of Pennsylvania).

DRS. CRENSHAW & POLLARD,

No. 308 Main St., Richmond, Va.

FRESH
GARDEN and FIELD SEED
At the old stand of Palmer & Turpin,
1626 Main street, Richmond,
Orchard Grass,

Timothy, Herds, Clover,

Kentucky Blue Grass.

Send for Catalogue.

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W. H. TURPIN

NURSERY STOCK. FALL, 1875.

We desire to call the attention of Nurserymen and Dealers to our exceedingly large, thrifty, and great variety of stock for Fall trade.

Special inducements offered in standard, Dwarf and Crab Apples; Standard and Dwarf Pears, Cherries, Gooseberries, Currants, Elms, Maples, Evergreens, Shrubs and Roses.

Correspondence Solicited.

SMITH & POWEL,

Syracuse Nurseries,

Syracuse, N. Y.

BELMONT STOCK FARM.

Black Hawk and pure bred Percheron Norman stallions to hire for the spring season. All ages and grades of these breeds, and also some *thoroughbreds* for sale. Pure and fashionable Short Horn Cattle of all ages, and Chester White and Berkshire Swine. Young Bulls will be sold unusually favorable to stock the country with grades, a rapid and cheap mode of the improvement of cattle.

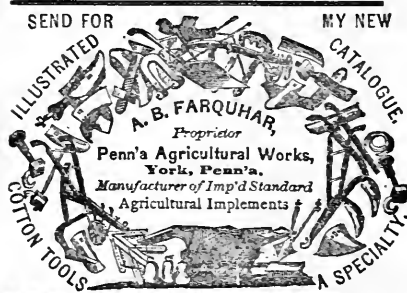
Near Charlottesville, Va., March, 1876.

S. W. FICKLIN.

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MY NEW



N. GUILBERT,

Evergreen Farm, Gwynedd, Pa.,

Importer and Breeder of Improved Blooded Live Stock, Horses, Cattle, Cotswold and Southdown Sheep, Chester, Berkshire and Yorkshire Pigs, Toulouse, Bremen and Hong Kong Geese, White China, Wild, Cayuga, Rouen, Aylesbury and Musk Ducks, Bronze, Blue, Buff and White Turkeys, Dorkings, Brahma, Cochins, Guinea and all other Fowl, Deer, Swans, Peacocks, Pigeons, Eggs, &c., at low prices. Best Breeds of Dogs and Maltese Cats, Rabbits, Ferrets, Guinea Pigs, White Mice &c. Fine Milch Cows always on hand.

Dec

VALUABLE LOT OF AGRICULTURAL PAPERS FOR SALE.

Fifteen bound volumes of the *South-ern Planter*.

Six or more volumes of "*Cultivator*," *American Farmer*. — volumes.

Five bound volumes of Transactions of New York State Agricultural Society.

Fifty or more volumes of *Rees' Encyclopedia*, and other valuable agricultural journals.

These valuable books will be sold cheap.

Address

J. M. McCUE,

Mt. Solon,

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Great Reduction in Price! Think of it!

BAUGH'S

TRADE MARK

RAW BONE



SUPER PHOSPHATE,

Made from Raw or Unburned Animals Bones. CHEAP FOR CASH.

We are now selling our Raw Bone Super-Phosphate on the following **GUARANTEED ANALYSIS:**

Ammonia, from 3 to 4 per cent; Soluble and Precipitated Phosphoric Acid, from 9 to 11 per cent; Phosphate of Lime, rendered Soluble, from 20 to 24 per cent.

At net cash wholesale prices to farmers and planters, F. O. B. in Philadelphia, at the following low prices:

	Per ton, 2,000 lbs.
100 Tons and over.....	\$38 00
75 " to 99 Tons.....	39 00
50 " to 74 "	40 00
30 " to 49 "	41 00
10 " to 29 "	42 00
1 " to 10 "	43 00

BAUGH'S

GROUND RAW BONES.

Guaranteed Pure, at the following cash prices:

100 Tons and over.....	\$34 00
50 " to 99 Tons.....	35 00
30 " to 49 "	36 00
10 " to 29 "	37 00
1 " to 9 "	38 00

This Bone is Ground Pure; is not steamed or baked, and the solid bone has not been selected from it for Carbonizing Purposes.

Farmers are requested to give their orders to the Dealer early, and if they cannot get Baugh's Standard Fertilizers from Dealers, they will be supplied by us direct.

ESTRELLA

TRUE BIRD GUANO,

Which we warrant to contain over 56 per cent. of Bone Phosphate of Lime, at the following wholesale cash price, on board cars, or vessel, in 200 pound bags.

100 Tons and over, \$23.00 per 2,000 lbs.	
75 " to 99 Tons, 24.00	" " "
50 " to 74 " 25.00	" " "
25 " to 49 " 26.00	" " "
10 " to 24 " 27.00	" " "
1 " to 9 " 28.00	" " "

This Guano has given remarkable satisfaction on spring and summer crops, and we now offer it on its own merit, believing it to be one of the best Manures in the market, at the price.

PHILADELPHIA

GROUND BONES

In Bags, on board Cars at Works, at the following Cash Prices:

100 Tons and over.....	\$30 00 per Ton.
50 " to 99 Tons.....	31 00 " "
30 " to 49 "	32 00 " "
10 " to 29 "	33 00 " "
1 " to 9 "	34 00 " "

If packed in barrels [no tare off], we will make a deduction of \$2.00 per ton from above prices.

Persons desiring to take advantage of the above low prices, should send in their orders at once.

No. 1 Fine Bone Dust,

GUARANTEED ANALYSIS:

Ammonia, - from 2 to 4 per cent.
Phosphoric Acid, from 14 to 17 "
Bone Phosphate of Lime 33 to 37 "

This article is ground very fine, and is noted for its quick action, and can be bought at the following reduced prices, free on board vessels at our Philadelphia Works:

	Per ton, 2,000 lbs.
100 Tons and over....	\$30 00
50 to 99 Tons.....	31 00
30 to 49 "	32 00
10 to 29 "	33 00
1 to 9 "	34 00

N. B.—One Dollar per ton additional on above prices if shipped from Baltimore.

BAUGH & SONS,

30 South Delaware Ave., Phila.

103 South St., Baltimore.

march—3t

THE AMERICAN FARMER,

The pioneer farm journal in America, and so long the exponent of the agricultural interests of this section, begins a new volume under the same control as for thirty years of its existence.

It will continue to be active in every branch of agricultural improvement, and devoted to the true interest of the farming class.

Containing nothing sensational or flashy, it is meant to suit the wants of intelligent and reading farmers and their families. The editors receive the aid of a large number of correspondents, eminent to their respective branches; and in each number, besides the treatment of the staple crops, the management, uses and application of home-made and artificial manures and fertilizers, will be found something seasonable for the Farm, Barn-yard, Sheep-fold, Orchard, Vineyard, Garden, Dairy, Poultry-yard, Apiary, Window Garden, Greenhouse, Lawn, Workshop and Household.

Subscription \$1.50 a year. To clubs of five or more, only \$1 each. All postage prepaid by us. Any person sending ten or more names at \$1 each will receive an extra copy free.

The *American Farmer* and the *Southern Planter and Farmer* clubbed together at \$2.25 a year.

As an advertising medium the following unsolicited testimonial will bear witness to its value.

WOODSTOCK, VA., December 13, 1875.

Messrs. EDITORS AMERICAN FARMER.—I have advertised through the agricultural press generally, and especially in the journals of the South, and must say for your encouragement in well doing, and for the benefit of your patrons and others wishing to reach Southern farmers through advertisements, that, in Southern trade, I have derived more benefit from advertising in the *American Farmer* than from all other journals together.

Truly yours,

L. H. MCGINNIS.

Address SAMUEL SANDS & SON,

PUBLISHERS AMERICAN FARMER.

9, North Street, Baltimore, Md.

Ap

FURNITURE & MATTRESSES.

SAMUEL W. HARWOOD,

Governor Street, RICHMOND, VIRGINIA.

Great Reduction in Prices.

Chamber Suits, \$25, \$30, \$35, \$50 to \$60; Chamber Suits, \$80, \$100, \$125 to \$500; Parlor Suits, \$40, \$50, \$60 to \$300; Sideboards, \$10, \$20, \$30 to \$100; Wardrobes, \$10, \$20, \$30 to \$100; Bureaus, \$9, \$15, \$20, \$30 to \$60; Bedsteads, \$3, \$5, \$7, \$8 to \$50; Chairs, per dozen, \$6, \$8, \$12, \$15 to \$35.

Mattresses of all kinds, with a great variety of other goods.

 See my Stock before buying.

Apl—6t

ASPARAGUS ROOTS FOR SALE.

They are one year old, grown on fertile land, and have excellent roots. Price, fifty cents per hundred; four dollars per thousand; not less than a hundred sold. Five hundred for two dollars.

Apply to

DR THOMAS POLLARD,

At his farm near Harvie, or No. 703 West Main Street,

Apl—tf

RICHMOND, VA.

The Buffalo Lithia Waters.

REMARKABLE RELIEF OF GRAVEL AND STILL MORE REMARK-
ABLE RELIEF OF DYSPEPSIA OF THIRTY YEARS' STANDING—
A MAN WHO HAS LIVED ENTIRELY FOR MANY YEARS
UPON CRACKERS AND TEA EATS BACON,
CABBAGE AND TURNIPS.

CASE OF CAPTAIN JAMES COVINGTON, A WELL-KNOWN AND
HIGHLY RESPECTED CITIZEN OF HALIFAX COUNTY, VA.

MOUNT LAUREL, HALIFAX COUNTY, VA., February 9, 1876.

Colonel THOS. F. GOODE :

Dear Sir,—Some eighteen months ago I was attacked by a very painful affection of the Bladder. Under the treatment of two physicians of high standing I grew steadily worse, until my sufferings were beyond description, and I was compelled to resort almost constantly to morphine for relief. I was unable to give any attention to my business, and had despaired of relief from any source, when, in the month of September last, I was advised to try the Buffalo Lithia Waters. Though within less than a day's ride of the Springs, my condition was such that I was unable to get to them, and consequently sent for the water, and used it at home. After using it a few days I was so far relieved that I could do without the morphine, and continued to improve for some six weeks, when I had an attack of great violence, from which I was relieved by the discharge of a large gravel, since which time I have discharged three smaller ones, with but slight pain. I am now able to ride on horseback or walk at pleasure, and am now regularly attending to my business affairs. I will add that for thirty years I had suffered greatly from *Dyspepsia*, and that for fifteen years I had been throwing up yellow water from my stomach. I could not eat animal food, and lived *entirely* on crackers and tea. In using the water for gravel I was relieved of my dyspepsia, and I now eat bacon, cabbage and turnips, and anything else that I want, without inconvenience. I believe the Buffalo Lithia Waters to be all that is claimed for them.

Yours respectfully,

JAMES COVINGTON.

THOMAS F. GOODE, Proprietor,
Buffalo Lithia Springs, Va.

Ap—

PUT YOUR MONEY IN GOOD STOCK,

AND YOU WILL FIND

that you have placed it where it will do you the most good ; then sell, trade off, or give away all common and inferior stock, and you will find profit in so doing.

Parties wishing JERSEY or ALDERNEY CATTLE, either registered or un-registered, and their grades, also COTSWOLD, LEICESTER, or SHROPSHIRE LAMBS, and BERKSHIRE or ESSEX SWINE, all bred from best sources, can be supplied by the subscriber at much less than Northern prices. Also,

AYRSHIRES.

As the celebrated premium Ayrshire herd of Col. F. D. Curtis, of "Kirby Homestead," New York, has been secured at considerable expense and placed in the subscriber's hands—this herd won first premiums at the New York State Fair, both as single animals and *as a herd*, and all are registered in the American Ayrshire Herd-Book. Now for sale "Charley Smith" Ayrshire Bull Calf, eight months old—price, \$60, sire, Duke of Charlton (No. 1094,) Dam Polyanthus (No. 3083,) both first prize animals. Younger calves will be for sale in September. Apply personally or by letter to

Ap—3m

A. P. ROWE,
Fredericksburg, Va.

THE
VALLEY CHIEF
REAPER AND MOWER

The only Machine made in the South, and every Machine warranted.

GRAND SILVER MEDAL

AT

FIELD TRIAL, JUNE 24,

AT

CULPEPER C. H., VA., 1874.

We ask a comparison of workmanship
and price of the home production.

IT CANNOT BE EXCELLED.

All inquiries cheerfully answered.

Catalogues furnished on application.

CHAS. T. PALMER,

Ap—tf

1526 Main Street Richmond, Va.

CHAMPION GRAPE.

The earliest, good market grape cultivated, ripens ten to twelve days earlier than Hartford. bunches large, berries large and compact, no mildew, very hardy. Send for free descriptive circular to J. S. STONE, Charlotte, Monroe county, N. Y. jan—4t

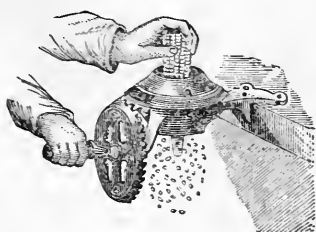
FARM FOR SALE.

A fine Grass Farm of 720 acres, in Pittsylvania county, Va.; admirably adapted to sheep raising; which will be sold cheap. Address Editor of *Planter and Farmer*. jan

WILLOW BANK STOCK FARM.

I am breeding Devon cattle, Merino sheep and Berkshire pigs, of pure blood and choice quality. My cattle are bred from the importations of C. S. Wainwright, and Hon. Ambrose Stevens. They are choice breeders and prize-winners. Have taken in the three seasons past, eight herd prizes and over sixty individual prizes in Iowa, Illinois and New York. My sheep and pigs also are of strictly first quality.

Also White Leghorn Chickens. Prices reasonable and satisfaction given. B. F. PECK, East Bethany, Genesee County, N. Y. jan—1y



Home
Corn
Sheller
The
best
and
sheller
or fam

ily use in the market.

Every Machine Warranted. Price, \$2.50, shipped by express, safely boxed, on receipt of price. Every farmer needs it. Live agents wanted. Send for descriptive circular to LIVINGSTON & Co., Iron Founders, Pittsburgh, Pa. jan

ROSES FOR THE MILLION!

Twelve choice Roses, assorted colors, by mail, for One Dollar. Descriptive lists sent free. TYRA MONTGOMERY, Mattoon, Ill. jan—3t

PURE GROUND BONE

AND AGRICULTURAL CHEMICALS.

H. J. BAKER & BRO.

215 Pearl St., NEW YORK.

Importers and dealers in strictly first quality FERTILIZERS.

Special fertilizers for particular crops. GEO. B. FORRESTER, Manager of this department. oct

Cheap and Durable Fencing.

500,000 Osage Orange Hedge Plants, \$2.50 per 1000, and 10,000 for \$23, packed ready for shipping.

Address BENJ. H. BROWN, feb—3t Oxford, Butler Co., Ohio

HAPPY VALLEY VINEYARD,

FAYETTEVILLE, N. C.

G. W. LAWRENCE, Prop.

PURE SCUPPERNON WINE.

This Wine is pure and clear, without any adulteration whatever. In bottles, it is carefully packed in boxes of one dozen each. In barrels, new, iron-hooped, strong, and safe to ship. In kegs, new, and will be boxed to insure safe carriage.

TERMS.—Cash with order. No charge for package or delivery to Express office Railroad or Steamboat.

Orders promptly filled. Apply for Price List Address G. W. LAWRENCE, feb—tf Fayetteville, N. C.

Manchester Drain Tile Works

The subscriber, having constantly on hand any quantity of drain tile of the most approved patterns, which he will sell at the lowest market prices, takes this method of bringing the subject before the farmers of Virginia, by whom they are extensively used in place of pine poles or stones for secret or blind ditches. They are used for draining Cellars, Ice-houses, Yards, and conducting water from hydrants. They are used for conducting water from any place that has a slight fall. Orders addressed to the subscriber, Manchester, Virginia, will receive prompt attention. SAMUEL D. ATKINSON.

mh—2t

FOR SALE

THOROUGHbred

JERSEY BULL,

ONE MONTH OLD.

PEDIGREE FURNISHED.

PRICE \$25.

Address GEO. B. STACY,

Amelia Courthouse, Va.

REPORT OF THE CONDITION OF THE FIRST NATIONAL BANK AT RICHMOND, IN THE STATE OF VIRGINIA, AT THE CLOSE OF BUSINESS, MARCH 10, 1876:

RESOURCES.

Loans and discounts.....	\$1,323,585 06
Overdrafts.....	502 60
United States bonds to secure circulation.....	622,250 00
United States bonds to secure deposits.....	100,000 00
Other stocks, bonds and mortgages.....	30,909 25
Due from approved reserve agents.....	65,168 90
Due from other National banks.....	37,984 18
Due from State banks and bankers.....	26,339 74
Real estate, furniture and fixtures.....	23,843 59
Current expenses and taxes paid.....	5,817 01
Checks and other cash items.....	7,387 38
Exchanges for clearing house.....	41,076 52
Bills of other National banks.....	22,839 00
Fractional currency (including nickels).....	5,456 20
Specie, including gold Treasury notes.....	2,024 60
Legal-tender notes.....	67,000 00
Redemption fund with United States Treasury (five per cent. of circulation).....	28,000 00
Total.....	\$2,410,234 12

LIABILITIES.

Capital stock paid in.....	\$700,000 00
Surplus fund.....	175,000 00
Other undivided profits.....	32,538 25
National bank notes outstanding.....	560,000 00
Dividends unpaid.....	460 00
Individual deposits subject to check.....	783,950 70
United States deposits.....	50,642 43
Deposits of United States disbursing officers.....	7,739 82
Due to other National banks.....	58,437 53
Due to State banks and bankers.....	41,465 34
Total.....	\$2,410,234 12

STATE OF VIRGINIA, COUNTY OF HENRICO, SS. :

I, SAMUEL A. GLOVER, Cashier of the above named bank, do solemnly swear that the above statement is true to the best of my knowledge and belief.

S. A. GLOVER, Cashier.

Subscribed and sworn to before me this 16th day of March, 1876.

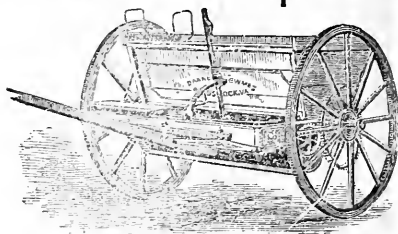
WILLIAM T. ALLEN, Notary Public.

Correct—attest:

THOMAS W. DOSWELL, }
I. DAVENPORT, JR., } Directors.
FRANKLIN STEARNS, }

Ap

McGinnis Improved Lime-Spreader.



Warranted to spread evenly any desired quantity per acre of fine and reasonably dry fertilizer.

It is an improvement on the Thornburg & McGinnis Spreader, retaining the oscillating and patented features of that, and greatly improved in simplicity, and perfectly adapted to regulate the sowing of any desired quantity, and to prevent the clogging of damp material.

PRICE REDUCED TO \$110.

Write for Circular to

DANNER & NEWMAN,

Woodstock, Va.

Ap—tf

Sole Manufacturer for the United States.

1876. McGRUDER'S 1876 FERTILIZER.

For TOBACCO, CORN, COTTON, WHEAT, VEGETABLES, POTATOES, MELONS, &c.

HIGHLY APPROVED BY THOSE WHO HAVE USED IT, AND NOT EXCELLED IN ITS RESULTS BY ANY FERTILIZER THAT HAS EVER BEEN OFFERED FOR SALE IN THIS COUNTRY.

Price, \$50 per Ton.

SPECIAL ARRANGEMENTS MADE WITH CLUBS AND GRANGES.

TESTIMONIALS.

HANOVER COUNTY, October 19, 1875.

Mr. CHARLES McGRUDER—*Dear Sir*.—It gives me great pleasure to say that your Fertilizer was used by several of my tenants, with very great success, upon the crop of Tobacco of the present year. Several varieties of the most popular fertilizers in the country were used upon my place, and I watched the whole operation, from the planting to the cutting of the crop, and feel no hesitation in saying that the most satisfactory results have been made this year upon my farm from the use of your Fertilizer—satisfactory, not only in the results realized, but eminently so in comparison with the use of other fertilizers standing very high in the country.

Very truly, yours, E. W. MORRIS.

POWHATAN COUNTY, January 11, 1876.

CHARLES McGRUDER, Esq.—*Dear Sir*.—I have just sold my Tobacco, made with your Fertilizer, for a fine price. I made a most excellent crop in quantity and quality, and am most highly pleased with your Tobacco Fertilizer.

Yours, respectfully, W. I. CAMMACK.

RICHMOND, January 12, 1876.

This is to certify that I used McGruder's Fertilizer upon Tomato Vines last year with a wonderful result. I think it one of the best in use for those plants.

Respectfully, &c., W. L. MONTAGUE.

MARCH 7, 1876.

Richard Kenney, of Hanover, made a crop of Tobacco last year with my Fertilizer, and says it is decidedly the best thing he ever tried, and that it has excelled all other fertilizers used by his neighbors.

Henry Redwood and others used the Fertilizer on Cabbage and Turnips last year, and the result was more than satisfactory.

HENRICO COUNTY, January 8, 1876.

C. McGRUDER, Esq.—*Dear Sir*.—I have used your Fertilizer on Cabbage, Watermelons and Turnips, and am just delighted with its effects. It is decidedly the best Fertilizer that I have ever used. It acted better for me than cow manure, side by side.

Yours, truly, D. B. JORDAN.

AMELIA COURT-HOUSE, December 19, 1873.

C. McGRUDER, Esq.—*Dear Sir*.—I have used your Tobacco Fertilizer for several years, and the effect on Tobacco has been equal to anything that I have been able to find in the market for that crop, and decidedly the best that I have ever used for wheat.

Very respectfully, JOHN WINGO.

Directions for Use.

Use the FERTILIZER broadcast, and mix it thoroughly with the soil.

CHARLES McGRUDER,
Corner 11th and Cary Streets,

Ap—3m

Or by letter through P. O. Box 228, Richmond.

PORK MILLER & CO.,
DRUGGISTS,
900 Main Street, RICHMOND, VA.

We sell none but strictly pure *drugs* and chemicals, and parties wishing articles that are reliable, will do well to order of us. We would call attention to our

HOREHOUND COUGH SYRUP,

for sale by all country merchants, at 25 cents per bottle. It is not a *quack* but a scientific compound, and we will take pleasure in showing the formula to any one. Apl—1y

**KEEP NONE BUT
GOOD STOCK.**

Parties wishing to purchase Fancy Stock of either Cattle, Sheep or Swine, can be accommodated by the subscriber, as follows:

Jersey Cattle of both Sexes, registered and unregistered, Cotswold, Shropshire and Leicester Sheep and Lambs, Berkshire and Essex Swine.

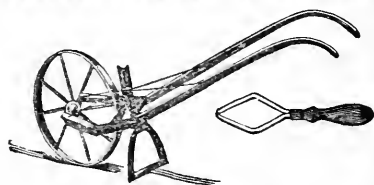
Herd's Book Jersey Bull CHATHAM, two years old, solid color, black points, and now ready for service, is for sale at the low price of One Hundred Dollars.

Chatham and his dam, "Imported Rose Harebell," both took first premiums at last State Fair. For further particulars, address

A. P. ROWE,
Fredericksburg, Va.

Apl—

BUCROFT'S PATENT WHEEL HOE.



One of the greatest labor saving machines invented, runs easy, cuts the weeds clean, stirs up the soil well, and is very durable. Every Farmer, Nurseryman Florist, Gardener, Small Fruit and Seed Grower should have one, it will pay for itself in a very short time.

BUCROFT'S HAND WEEDER.

This is a very useful Implement for Florist, Vegetable and Small Fruit Growers. Ladies can also use it to great advantage in their Flower Gardens. Agents wanted in every town, to whom great inducements will be offered. Also, an immense stock of Evergreen and Deciduous Trees of all kinds and sizes. Grape Vines, Small Fruits, Shrubs, &c., for sale at very low prices.

Full Descriptive Price List Sent Free. Address

THOMAS JACKSON, Nurseryman,

Apl—

Portland, Maine.

CHESAPEAKE AND OHIO R. R.

On and after JANUARY 2, 1876, passenger trains will run as follows:

FROM RICHMOND:

Leave Richmond,	9.00 A. M.	10.00 P. M.
Arrive at Gordonsville,	12.55 P. M.	1.18 A. M.
Arrive at Washington,	7.40 P. M.	7.40 A. M.
Arrive at Charlottesville,	2.10 P. M.	2.15 A. M.
Arrive at Lynchburg,	5.30 P. M.	9.15 A. M.
Arrive at Staunton,	4.15 P. M.	4.10 A. M.
Arrive at Goshen,	6.15 P. M.	5.48 A. M.
Arrive at Millboro',	6.40 P. M.	6.09 A. M.
Arrive at Covington,	8.55 P. M.	7.35 A. M.
Arrive at Alleghany,	9.58 P. M.	8.30 A. M.
Arrive at White Sulphur,	10.20 P. M.	8.42 A. M.
Arrive at Hinton,	1.15 A. M.	10.30 A. M.
Arrive at Kanawha Falls,	5.25 A. M.	1.15 P. M.
Arrive at Charleston,	7.08 A. M.	2.52 P. M.
Arrive at Huntington,	9.40 A. M.	4.55 P. M.
Arrive at Cincinnati,		6.00 A. M.

Train leaving Richmond at 9.00 A. M. runs daily (Sunday excepted) stopping at all regular stations.

Trains leaving Richmond at 10.00 P. M. runs daily, stopping at Hanover, Louisa, Gordonsville, Charlottesville, Ivy, Mechum's river, Greenwood, Waynesboro, Staunton, Goshen, Millboro', Covington, Alleghany, and all other stations west of Alleghany.

Accommodation train leaves Richmond for Gordonsville and all intermediate stations daily (except Sunday) at 4.00 P. M.

Pulman sleeping-car runs on 10.00 P. M. train between Richmond and White Sulphur.

Trains arrive at Richmond as follows:

Express Train daily at 4.45 A. M.

Mail Train daily, except Sunday, at 5.40 P. M.

Accommodation Train daily (except Sunday) at 9.40 A. M.

Trains coming into Richmond stop at stations as above.

Trains make close connection with trains of the Richmond and Danville and Richmond and Petersburg Railroads, both to and from Richmond.

For further information, rates, &c., apply at 826 Main street, or at company's office.

CONWAY R. HOWARD,

Mh General Passenger and Ticket Agent.

W. M. S. DUNN,

Engineer and Supt. of Transportation.

LIGHT BRAHMAS,

EXCLUSIVELY

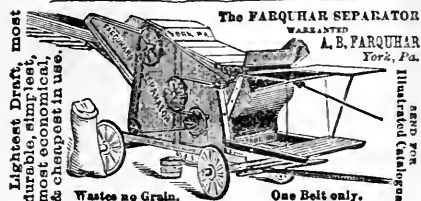
FELCH STRAIN.

Can now furnish EGGS FOR HATCHING from pure bred fowls, carefully boxed.

Address H. THEO. ELLYSON,

Box 73, Richmond, Va.

feb—tf



W. ATLEE BURPEE, BREEDER AND SHIPPER OF IMPROVED BLOODED STOCK,

Cattle, Sheep, Swine, Land and Water Fowls, Pigeons, Ferrets and Dogs. Circulars free—Illustrated descriptive Catalogue of Poultry, Pigeons, &c., ten cents, Philadelphia, Pennsylvania.

Chester White Swine a grand specialty; also Berkshires, Essex, York-hires and Poland China; Jersey, Guernsey, Ayrshires, Devon and Short-horn Cattle; Cotswold and Southdown Sheep. All varieties of high-class Turkeys, Geese, Ducks and Poultry, bred on separate farms. Eggs for hatching; Sporting and Thoroughbred Dogs. Circulars free. Write before purchasing elsewhere. Satisfaction guaranteed, and prices reasonable.

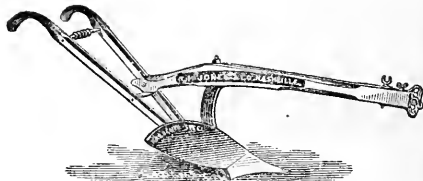
CHESTER COUNTY MAMMOTH CORN, the best yet produced, yield seventy-five to one hundred and fifty bushels per acre. Selected seed at \$4 per bushel, fifty cents per pound; postpaid, sample free for two stamps.

Address W. ATLEE BURPEE,
No. 1332 Arch Street,
Philadelphia, Pa.

mh—1y

CENTENIAL.

Commission House of Hull & Scotney, 346 N. Water st., Phila., dealers in Vegetables, Fruit, Produce, Furs, &c. Marking Plates, Tags, Price Lists, etc., on application.



Farmers! Planters! Dealers! ATTENTION!

Every Farmer and Planter in the country, North and South, should raise

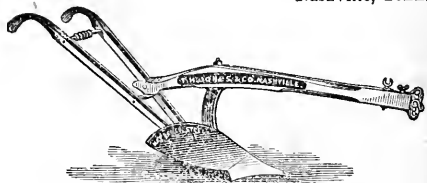
GERMAN MILLET!—More Money and Less Labor than in Cotton or Grain. The yield of Hay and Seed is immense. Produces Three to Four Tons of splendid Hay, and Fifty to Eighty Bushels of Seed per acre.

Hay and Seed bring Highest Prices in market. Heavy crops in almost any Soil or Climate. Two crops from same ground in one season in the South. Stock can be raised and fattened on this feed alone. This is the only Market from which you can obtain this most valuable Grass Seed, fresh and genuine.

Send Stamp for Circular giving full description and particulars of "German Millet," (free.)

We can also furnish any kind of Agricultural Implements, Farming Machinery and Field Seeds of best quality, and at lowest prices.

Address all orders to T. H. JONES & CO.
Nashville, Tenn.



MONEY MAKING, LABOR SAVING MACHINERY.

FARMERS & PLANTERS!

The Greatest Labor Saving Implement in Use.

IS the celebrated "JONES WALKING CULTIVATOR." One man (or boy) and two horses, will do the work of Four One-horse Plows in the cultivation of Co., Cotton, Cane, &c. With this Cultivator one hand can cultivate from 60 to 80 acres of Corn, and do his share of other farm work. It has no equal for cultivating purposes.

I own and control the Patent Right to the United States for this "Cultivator," and will "lease" or sell State, County or Grange Rights, at such low figures that you cannot help making money.

Send Stamp for Illustrated Catalogue—free—with full description of "Walking Cultivator."

WE can furnish any kind of Agricultural Implements, Farming Machinery, or Field Seeds, of best quality, and at lowest prices.

Don't buy until you write to us for anything you want. Address all orders to

T. H. JONES & CO.
Nashville.

Ap—3m

SMALL FRUIT INSTRUCTOR.

A work of 64 pages, that tells how to grow fruits in abundance for home use or market, having drawings to illustrate, etc., etc. Price, 25 cents, post paid. Our **Fruit Recorder and Cottage Gardener** is a monthly paper, devoted to fruit growing, truck raising and home's adornment, at \$1.00 per year. Most liberal terms to club agents of any paper in this country. A specimen copy as well as our wholesale and retail price list of plants and trees FREE to applicant. Address A. M. PURDY & CO., Rochester, N. Y., or PURDY & DORLAND, South Bend, Indiana.

COMMISSION MERCHANTS.

THOMAS J. SPENCER,
Commission Merchant

FOR SALE OF
TORACCO, GRAIN AND FLOUR,
TOBACCO EXCHANGE,
Richmond, Va.

REFERENCES.—National Bank of Virginia and State Bank of Virginia, Richmond, Va.; Daniel & Tucker, Charlotte C. H., Va.; Rev. John H. Cawthon, Evergreen, Va.; Booker & Hunt, Farmville, Va.
Ap—1y

JNO. R. JETER,

Produce Commission Merchant,
SHOCKOE SLIP, RICHMOND, VA.,

SOLICITS CONSIGNMENTS OF TOBACCO,
GRAIN, AND OTHER COUNTRY
PRODUCE.

Personal attention given to all sales, and returns made promptly.

GRAIN BAGS furnished at usual rates upon application. Ap—1y

THE WESTERN RECORDER, LOUISVILLE, KY.

Organ of the Baptist Denomination.

FORTY-THIRD VOLUME.

Rev. A. C. CAPERTON, D. D. Editor.

The *Recorder* also contains discussions by the ablest writers in this and foreign lands on the Theological, Educational, Scientific and Social topics of the day, and Religious Intelligence from all parts of christendom; the International Series of Bible Lessons with expositions by a Master Workman; a weekly digest of current secular news; full and accurate reports of the Markets in Louisville and Cincinnati; and special departments for the Farm, Family and Little Folks.

Price in advance, \$2.65 a year; to Ministers, \$2.15.

The *Recorder* is acknowledged to be one of the best advertising mediums in the South.

Sample copies sent free.

Address WESTERN RECORDER,
Ap—1t Louisville, Ky.

BUTTER BULL FOR SALE.

RAMBEAU, dropped May 30th, 1875. Sire, *Sudbrook*, (1262). Dam, *Imported Rose Harebell*, (3243), my First Premium Cow—Virginia State Agricultural Society, 1875. Price \$100.

Solid color, full points.

G. JULIAN PRATT,
apl-1t Waynesboro, Augusta Co., Va.

THE PIEDMONT GUANO

—FOR—

TOBACCO and COTTON.

Has for years maintained an unsurpassed reputation for HIGH STANDARD, UNIFORM QUALITY and RELIABILITY.

Address for Circulars,

W. JUDSON BROWN, 84 South Street, Baltimore, Md.
CHARLES WAITE, Culpeper, Va.

MORO PHILLIPS, MANUFACTURING CHEMIST.

MANUFACTURER OF

ACIDS, CHEMICALS, AND FERTILIZING MATERIALS, MORO PHILLIPS' GENUINE IMPROVED SUPER PHOSPHATE,

MORO PHILLIPS' PURE PHUINE,

MORO PHILLIPS' SOLUBLE BONE PHOSPHATE, AND
IMPORTER OF SERRANA GUANO.

For Sale at } 110 South Delaware Avenue, Philadelphia,
Manufacturer's Depots, } 95 South Street, Baltimore, Md.

Information will be cheerfully furnished on application, and Farmers and Planters satisfied of the reliability of my Manufactures. Please write for information.

MORO PHILLIPS,

march—9t

Sole Proprietor and Manufacturer.

COE'S

Ammoniated Bone Phosphate

ESTABLISHED IN 1845.

And has sustained its high reputation for THIRTY YEARS.

LETTER FROM W. B. BOYD, *Master Grange*.

SHOCKOE CHURCH, PITTSYLVANIA Co., VA., January 3, 1876.

MR. ANDREW COE, Baltimore, Md.,

Dear Sir—I think that amongst the different members of our Grange about twelve tons of your Fertilizer was used last season. I have not heard a word of complaint, on the contrary, all have expressed themselves as highly pleased.

Our Grange appointed a Committee at its September meeting, I think, to inquire into the cost and effect of Fertilizers used by the members of the Grange. The committee reported that they had examined various crops in the neighborhood, crops upon which your Fertilizer was used, and crops on which nearly all of the various Fertilizers common to this market were used, and, that considering the cost and effects of the Fertilizers, they consider yours the best and cheapest, which report was received by the Grange.

Yours truly,

W. B. BOYD.

ANDREW COE,

Office No. 52 Light St., Baltimore.

mh

FERTILIZERS.

For Cotton, Tobacco, Corn, Oats and Vegetables.

Soluble Sea Island Guano,

A concentrated manure of undoubted excellence for

Cotton, Tobacco, Cereals & Vegetables

Ammoniated Alkaline Phosphate,

The Patron's Manure. Sold on Special Terms to Grangers.

Drake's Branch, Va., Aug. 15, 1875.

Resolved, That we express to R. W. L. Rasin & Co. our entire satisfaction at the result of the use of their **Alkaline Phosphate** the present season on **Tobacco**.

W. E. McNERY, Master.

Bush River Grange Va. No. 12, Sept. 17, 1875.

Resolved, That we express our satisfaction to R. W. L. Rasin & Co. as to the very favorable result of their fertilizer (**Alkaline Phosphate**), used by this Grange for the past **Two Years**.

J. A. SHACKELTON, Sec'y.

WM. P. DUPOY, Master.

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Pure Bone Flour and Meal,

From our Extensive Texas Factories.

Ammoniacal Matter,

An ammoniate superior to Peruvian Guano.

Potash Salts

Dissolved Bone Phosphate, &c., &c.

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